



2012 Annual Fishing Newsletter



*Montana Fish,
Wildlife & Parks*

Table of Contents

<i>Introduction.....</i>	<i>1</i>
<i>FWP Regional Offices</i>	<i>2</i>
<i>Region 1 Northwest Montana</i>	<i>3</i>
<i>Region 2 West Central Montana</i>	<i>7</i>
<i>Region 3 Southwest Montana</i>	<i>12</i>
<i>Region 4 North Central Montana.....</i>	<i>18</i>
<i>Region 5 South Central Montana</i>	<i>30</i>
<i>Region 6 Northeast Montana</i>	<i>33</i>
<i>Region 7 Southeast Montana.....</i>	<i>38</i>
<i>Aquatic Invasive Species Program</i>	<i>41</i>
<i>Montana Fish Hatcheries.....</i>	<i>43</i>
<i>Murray Springs Trout Hatchery</i>	<i>44</i>
<i>Flathead Lake Salmon Hatchery.....</i>	<i>45</i>
<i>Jocko River Trout Hatchery.....</i>	<i>46</i>
<i>Washoe Park Trout Hatchery</i>	<i>47</i>
<i>Giant Springs Trout Hatchery.....</i>	<i>48</i>
<i>Big Springs Trout Hatchery</i>	<i>48</i>
<i>Yellowstone River Trout Hatchery.....</i>	<i>50</i>
<i>Bluewater Springs Trout Hatchery</i>	<i>51</i>
<i>Fort Peck Fish Hatchery.....</i>	<i>51</i>
<i>Miles City Fish Hatchery</i>	<i>52</i>
<i>Fish Health Program.....</i>	<i>53</i>

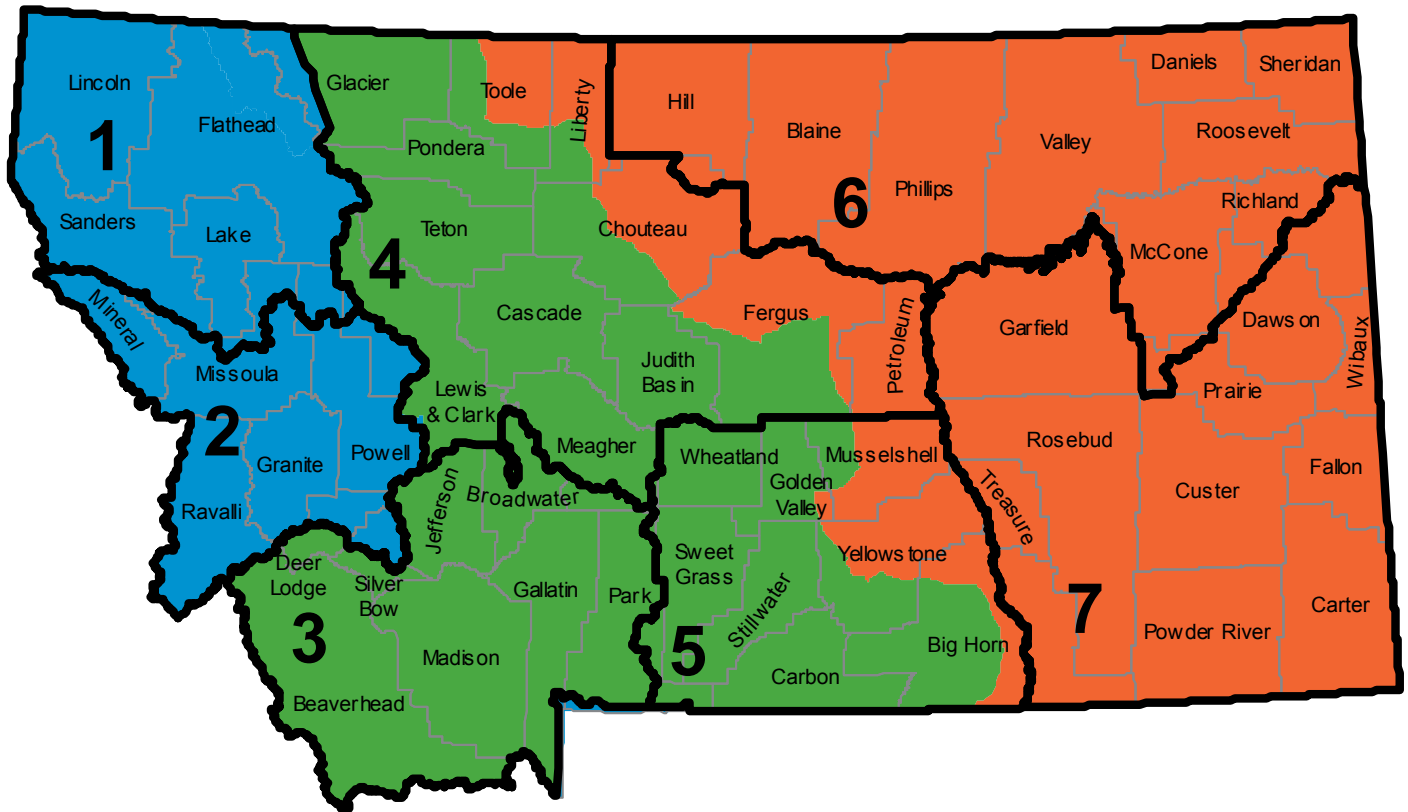
INTRODUCTION

Without a doubt, one of the main themes in this year's newsletter is the impacts of the floods of 2011 on the fishery resources and the aquatic and riparian habitats of Montana. The snowpack was much higher than average in many areas of the state and a cold, wet spring extended high water through June and into July in many areas, keeping waters turbid and cold and making fishing difficult and slow.

In the lower Missouri and Yellowstone drainages, the floods were an unfortunate convergence of runoff and intense spring rains, causing much flood damage, with the most devastating effects in central Montana rivers such as the Milk, Judith and Musselshell. The consequences of the floods on the fishery resources were mixed. In ponds and reservoirs, rising water levels are often very beneficial in terms of forage fish production. High water in rivers can be a positive cue for large migratory fish like paddlefish, bull trout and sturgeon seeking to reach spawning grounds, provided that other conditions like time of year and water temperature are adequate. The high water unfortunately is also destructive, and the new channels that form, the banks that are eroded, and the bedload that is moved, may have both positive and negative effects for the fish.

The effects of the floods on human dwellings, property and their enterprises also affect our staff. Countless hours were spent this summer and fall on stream protection permits as flood waters dropped and landowners were developing plans to repair flood damage. Staff in south central Montana shouldered the additional task of overseeing a major oil spill caused when a pipe broke at the peak of Yellowstone River runoff. As you read through the summaries of activities of our fisheries staff from around the state, you will appreciate the difficulties that floods pose for them to get their work done, and also the benefits and costs for fish management that ensue in the aftermath of floods.

FWP Administrative Regions and Fishing District Boundaries



FWP REGIONAL OFFICES

Headquarters

1420 E. 6th Avenue
Helena, MT 59620
406-444-2449

Region 1

490 North Meridan Road
Kalispell, MT 59901
406-752-5501

Region 2

3201 Spurgin Road
Missoula, MT 59804
406-542-5500

Region 3

1400 South 19th Avenue
Bozeman, MT 59717
406-994-4042

Region 4

4600 Giant Springs Road
Great Falls, MT 59405
406-454-5840

Region 5

2300 Lake Elmo Drive
Billings, MT 59105
406-247-2940

Region 6

Route 1 - 4210
Glasgow, MT 59230
406-228-3700

Region 7

Industrial Site West
Miles City, MT 59301
406-234-0900

Butte Area Office

1820 Meadowlark Lane
Butte, MT 59701
406-494-1953

Havre Area Office

2165 Hwy 2 East
Havre, MT 59501
406-265-6177

Helena Area Office

930 Custer Avenue W.
Helena, MT 59620
406-495-3260

Lewistown Area Office

215 W Aztec Drive
Lewistown, MT 59457
406-538-4658

REGION 1

NORTHWEST MONTANA

Regional Overview - Jim Vashro

Floods

La Nina struck northwest Montana with a vengeance. 2011 ushered in with lots of snow, and snowpacks continued to build into May. In some drainages snowpack exceeded 250% of normal. A cold, wet June resulted in high runoff that spilled over river banks and kept flows above normal for the rest of the summer. June was literally a washout for fishing, but the rest of the summer was great.

High flows flushed water and silt into riparian areas which will help replenish trees and shrubs. But the same high water flooded many Fishing Access Sites which were closed to prevent damage and because rivers were too high for safe recreation. Sustained flooding chewed up river banks and fishery biologists were busy all summer reviewing applications to repair damaged banks, roads and stream crossings. High flows were also tough on young fingerling fish. On the positive side, high flows created many new side channels, debris jams and undercuts for habitat. Flushing silt into riparian areas also cleaned out spawning gravels which should all create better conditions for fish for the next few years.

Lakes were also brimful, in many cases flooding shallow vegetation which provided spawning and security habitat for fish. An unusual case was Echo Lake near Bigfork. Echo has no outlet so water levels continued to rise through summer as groundwater continued to flow in. An important connector road called the Causeway was closed in late June as it flooded, not to reopen for nearly 6 months. A number of lakeshore homes were also flooded, and the FWP Commission imposed a No-Wake Boating Rule at the request of County Commissioners. The Echo Lake Fishing Access Site also flooded, but FWP was able to keep the ramp open for launching. Anglers reported great bass fishing with no water skiers and jet skis to roil the water. Echo Lake went into winter much higher than normal, raising concerns that another wet winter could raise the lake even higher next summer.

Fishing Regulations

Fishing regulations are set only every 4 years to increase angler understanding and compliance. The process takes nearly a year involving scoping for issues, data analysis, formulation of alternatives and setting of tentative and final regulations, with public input at each stage. The Montana Fish, Wildlife & Parks Commission adopted the final regulations for 2012-2015 that will go into effect March 1, 2012. Anglers should check for changes.

One major change is that the 2009 Legislature eliminated the requirement for the Warm Water Game Fish Stamp. The stamp was required to fish 10 waters in Region 1 and nearly 60 waters statewide to provide funding for the Fort Peck Fish Hatchery. The hatchery will now be operated under general hatchery funding.

Bull trout redd (spawning) counts have declined nearly 55% in Lake Koocanusa and 30% in the Swan drainage in recent years. Fishing for bull trout, listed as Threatened in 1998, is allowed in only 4 waters in Montana. In response to the declines, bull trout were changed to catch and release for Koocanusa, which had a 1 per day, 2 per year limit, and for Swan Lake, which had a 1 per day and in possession limit. Hungry Horse Reservoir remains the only water where bull trout can be harvested. A bull trout permit and catch card are required for Koocanusa, Hungry Horse and the South Fork Flathead River.

The Kootenai River downstream of Libby Dam is regarded as an outstanding rainbow fishery, but it has declined greatly due to a number of factors. "Didymosphenia geminata", also known as Didymo or "rock snot", is carpeting the stretch below the dam and is a primary suspect in the decline. To hold the line while figuring out what can be done with the rock snot, the rainbow fishery from the Dam to the Fisher River will be closed March through May and open to the harvest of only 1 trout per day, which must be over 28" the rest of the year.

Fishing Access

Anglers and boaters can access waters through both State Parks and Fishing Access Sites (FAS). Most recreationists don't consider the difference. State Parks tend to be more developed and often

provide camping. Fishing Access Sites tend to be smaller, usually provide just the basics for parking and sanitation, and may provide camping but are geared more toward day-use. The State Parks Division has been overseeing acquisition, development and operation of FASs for the last decade or more, but in 2011 transferred that responsibility back to the Fish and Wildlife Division to focus more on Parks. Hopefully the transition was seamless and users didn't notice a difference.

There were several major additions to Region 1 FASs in 2011. A woman named Elizabeth Taylor wanted to create a FAS in memory of her son Paul. At the same time, Edna Ridenour and family approached FWP about creating an access on their land on Lake Five near West Glacier. Both ladies had grown up in the area, and were acquainted, so a deal was struck. Lakeshore owners were concerned over potential changes from increased public use, so it took 8 years of planning, litigation and negotiations but Paul's FAS was opened in 2011. The FAS offers a spectacular view of Glacier Park and has already seen heavy use by kokanee ice anglers.

Region 1 is blessed with an abundance of lakes and ponds, but many families struggle to fish with limited budgets and time. Family Fishing Waters or urban ponds have now been created near many

northwest towns and are extremely popular. Five years ago, Robin Street and his family approached FWP about building a pond from scratch along the Whitefish River just north of Kalispell on land homesteaded by the family in 1883. The Street family, particularly Robin and his son Steve, took on all the needed paperwork, had the pond excavated as a gravel pit and turned all the proceeds back into reclamation as a family friendly fishing pond, then donated a 13 acre parcel with the 5 acre pond to FWP. Named Pine Grove Pond after a small school and community established by the Street family nearly 120 years ago, the pond opened with a Kids Fishing Day in late April attended by 400 kids and family members. Heavy use continued until fall with an estimated 10,000 or more visitor days, as much as nearby Hungry Horse Reservoir receives!



Pine Grove FAS north of Kalispell.

Montanans owe a debt of gratitude to the likes of the Taylors, Ridenours and Streets who want to support and pass along a heritage of fishing and family recreation.

Aquatic Invasive Species

Montanans are increasingly hearing about Aquatic Invasive Species or AIS. Unwelcome visitors, AIS can dramatically change aquatic communities, clog waterways, change water quality and reduce fishing and boating opportunities. AIS include whirling disease, Didymo or rock snot, New Zealand mudsnails and, more recently, Eurasian water milfoil (EWM). First discovered in the lower Clark Fork, EWM was more recently found in Beaver Lake near Whitefish and in the Missouri drainage. State agencies have established boat check stations as one way to stop the spread of AIS.

Young Angler – Ancient Fish

In July 2011, 10-year old Garrett Frost of Kalispell caught a largemouth bass from a Flathead slough that is nearly twice as old as he is. Fishing with his two brothers and father, Garrett landed the fish on a rubber worm. The 20-22" bass weighed 3-1/2 pounds and had a plastic floy tag in its back. The bass had originally been tagged in the same general area in 1997 when it was 14.2" long and weighed 1.5 pounds. Fishery biologist Mark Deleray estimated the fish was about 5 years old when tagged which would make it 19 years old when recaptured! The fish, which had grown 8-10" and 2 pounds in 14 years was released to fight another day.



Montana bass are at the northern end of their range and grow slowly. Three pound bass are commonly 8-10 years old and 5 pound bass are 12 years and older. Bass require conservative management to maintain quality fishing. This was the oldest recorded bass in Montana.

State and county agencies are working on strategies to stop the spread of AIS and detect new infestations for control. Recreationists can help by remembering to Inspect-Clean-Dry all equipment used in water.

Illegal fish introductions fall under AIS and continue to plague northwest Montana and the rest of the state. More than 500 illegal fish introductions have now been documented, ruining fishing opportunities and raising management costs and license fees. Illegal walleye are now increasing in the lower Clark Fork, jeopardizing a multi-million dollar native westslope cutthroat and bull trout restoration program funded by Avista Utilities in coordination with state and federal agencies. Black crappie have appeared in a number of waters where they will impact yellow perch. Illegally planted yellow perch will impact the smallmouth bass in Horseshoe Lake near Ferndale, but smallmouths have appeared in a number of other waters, most notably Little Bitterroot Lake where they will prey on the popular kokanee.

South Fork Flathead Watershed – Matt Boyer

Northwest Montana contains hundreds of mountain lakes that provide a wealth of quality fishing opportunities. Since many of these lakes are only accessible by trail, those willing and able to hike or ride pack stock are rewarded with outstanding angling in an uncrowded backcountry setting. Furthermore, these fisheries offer some of the best harvest opportunities for native trout as well as the chance to land a trophy fish.

In addition to providing recreational fishing opportunities, these mountain lakes contain important habitat for populations of native westslope cutthroat trout. Historically the most abundant and broadly distributed of the cutthroat trout subspecies, westslope cutthroat trout now occupy less than 10% of their historic range due to habitat degradation and hybridization and competition with introduced trout species. Today, the South Fork Flathead River drainage comprises more than half of the remaining interconnected habitat for westslope cutthroat and long-term persistence of this native Montana species depends in large part on conservation actions aimed at reducing threats posed by introduced trout species.



High mountain lakes provide outstanding angling opportunities for native westslope cutthroat trout.

In an effort to maintain the South Fork Flathead drainage as a stronghold for westslope cutthroat trout, Montana Fish, Wildlife & Parks, in collaboration with the U.S. Forest Service and Bonneville Power Administration, began implementation of a broad-scale conservation program aimed at restoring westslope cutthroat populations in 21 headwater lakes that were historically stocked with nonnative rainbow and/or Yellowstone cutthroat trout. Since program implementation in 2007, this effort has successfully removed nonnative trout from 16 mountain lakes and westslope cutthroat have been restocked to establish wild populations that will both provide recreational fisheries and aid in the conservation of this native Montana trout.



Woodward Lake in the South Fork Flathead River drainage, Bob Marshall Wilderness.

The charm of fishing is that it is the pursuit of what is elusive but attainable, a perpetual series of occasions for hope. —John Buchan

Thompson Falls Fish Passage
- Kenneth Breidinger

Bull trout are large migratory fish that spend much of the year in lakes and rivers but return to the small tributary streams where they were spawned to reproduce each fall. Dams and reservoirs throughout the bull trout's range impede these annual movements and block many adults from returning to their natal streams. Habitat fragmentation, habitat degradation and nonnative species have caused significant declines in the abundance of bull trout throughout their native range, resulting in their listing in 1998 as a threatened species under the Endangered Species Act.

The Thompson Falls hydroelectric dam was constructed in 1913 and is currently the upstream-most dam on the main stem of the Clark Fork River. Until recently this dam blocked the upstream movements of fish including bull trout. In 2010, PPL Montana, the dam's owner, built an upstream fish passage ladder to minimize impacts to bull trout. This fish passage structure is the first built specifically for bull trout. Operated by FWP under contract with PPL, the facility is a success according to 2011 results.



The Thompson Falls Dam fish ladder built by PPL Montana. This picture was taken in winter when no fish are moving and flows are too low to use the fishway.

The Thompson Falls fish ladder is a series of 48 concrete step pools that allow fish to gain the elevation necessary to pass the dam. Within each pool, slow moving water provides a resting area for fish ascending the 75 foot high ladder. The ladder was constructed with a trap at the top that allows biologists to collect data on fish movements, evaluate the effectiveness of the ladder and prevent

the movement of some nonnative species such as walleye and lake trout.

In April 2011, the Thompson Falls fish ladder passed its first fish, a rainbow trout, and has since passed over 1,700 fish. Two of these fish were bull trout, indicating that the species can and will navigate the ladder. Although the ladder only passed two of its target species, it has been considered a success. Spring runoff in 2011 was unusually high, rendering the ladder inoperable throughout most of the bull trout's primary migration period. During typical flow years, the ladder will remain open throughout more of this period. In addition to bull trout, the ladder also passed many of the other fish species present in the area. The most common fish passed was the northern pikeminnow, with 927 navigating the ladder. The most common sport fish passed was the rainbow trout (163) followed closely by smallmouth bass (131).

Weather will dictate the 2012 operating period for the Thompson Falls fish ladder. It is anticipated that the ladder will remain open between late March and mid October. The knowledge gained during the 2011 operations will be used to tweak the ladder and its management in 2012, hopefully building on the project's 2011 success.

The Columbia River Treaty - Brian Marotz

The Columbia River Treaty between Canada and the United States could change established dam operations at Hungry Horse and Libby reservoirs and river fisheries downstream.

The operation of Hungry Horse and Libby dams could change after 2024, with potentially significant consequences to the reservoir and river fisheries. Don't let the distant date lull you to sleep however, because an international process is already underway. Results to date demonstrate that Montana, nearby Tribes, and our natural resources have much at stake.

The Columbia River Treaty was implemented in 1964 to mandate the construction and operation of Transboundary Columbia dams for flood control and power generation in Canada and the United States. In 2014, the neighboring countries have the opportunity to give notice of their intent to

extend, terminate or modify provisions in the treaty. Without notice in 2014, treaty provisions that reserved a huge amount of flood storage in Canada will sunset in 2024, 60 years after treaty initiation. Because of this, system flood control is central to ongoing analyses that will form a report from the US Army Corps of Engineers and Bonneville Power Administration to the US State Department in 2013. Basically, the potential impacts to Montana's natural resources increase when the dam system is operated to maximize flood protection in the lower Columbia River. This operational scheme presents a problem because so many homes and businesses have been built in flood prone areas downstream.

Canada expects the U.S. to maximize flood control using domestic dams before additional storage is requested from Canada and, like us, Canadians care very much about their fish and wildlife resources. Initial analyses indicate that Hungry Horse and Libby dams might need to be drawn down deeper to meet these new flood control requirements, and that would impact reservoir refill and river flows in the Flathead and Kootenai rivers downstream. These changes could reverse many of the benefits to fisheries achieved by the "Montana Operation" that, after two decades of research and lawsuits, were fully implemented for the first time in 2009. Fortunately, Montana is fully engaged in this system-wide modeling analysis, and ecosystem-based functions are being elevated to the stature of power production and flood risk management. A three-phased analysis has begun to balance power and flood management with fish and wildlife needs throughout the Columbia River Basin. We are promoting a strategy that adjusts reservoir drawdown and refill targets based on the amount of inflow to each headwater storage project. Subbasins with lots of rain and snow could provide higher river flows for downstream needs, while drier basins are spared to protect local resources. New modeling tools allow us to optimize water routing among headwater subbasins throughout the Columbia system to maximize benefits as water supplies vary from year to year. Montana will have to remain extra vigilant as negotiations proceed to ensure our needs aren't overshadowed by more populous downstream states.

REGION 2 WEST CENTRAL MONTANA

Bitterroot Drainage - Chris Clancy

During 2011, some significant changes to the fishing regulations occurred. The two main goals of the changes were to simplify the regulations and encourage more harvest of brown trout in the upper drainage (Figure 1). The reason for the concern in the upper drainage is that the brown trout are expanding into areas that we consider strongholds for native westslope cutthroat and bull trout. The areas most affected are the lower East and West Forks of the Bitterroot, where 3 brown trout of any size may be kept, but all westslope cutthroat trout, bull trout and rainbow trout must be released (rainbow trout have declined recently in this area, most likely due to whirling disease).



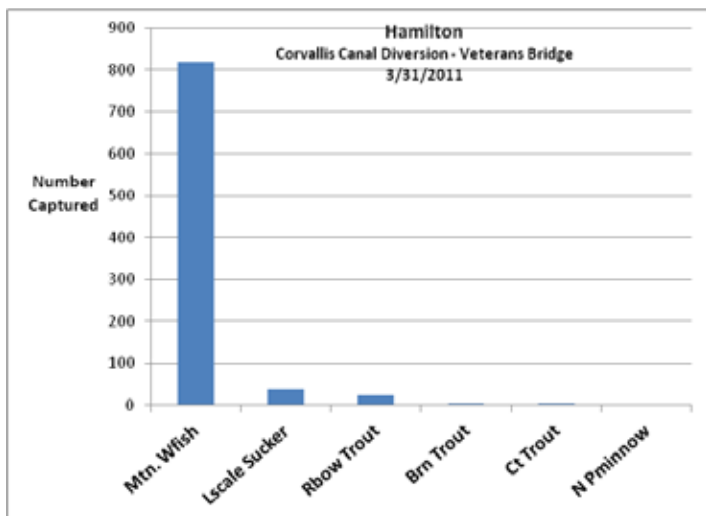
Fish monitoring in the Bitterroot River.

We surgically implant radio transmitters in westslope cutthroat trout in the upper East Fork Bitterroot River. We follow the fish during their spawning migrations so we can identify the streams that are nursery areas. We have been systematically doing this work in the Bitterroot River drainage over the past 13 years, but had not worked in the upper East Fork. Of the 12 fish that carried transmitters, it appeared that 7 of them migrated to spawning areas. The other 5 remained in the East Fork, but we do not know if they spawned there.

Many men go fishing their entire lives without knowing it is not fish they are after. — Henry David Thoreau

FISHING NEWSLETTER 2012

2011 is the first year that we have spent a day electrofishing on the river and netting all of the fish we can capture. The reason we are doing this is to have some information on the proportion of each species in the river. During our long-term monitoring efforts each fall, we only census the number of trout in the river. This year we electrofished 2 miles of river near Hamilton, and the predominant species we captured were mountain whitefish. During 2012, we plan on collecting the same type of data near Missoula and Darby.



The number of each species captured during electrofishing on the Bitterroot River on 3/31/2011.



Leslie Nyce of FWP holding a large brown trout electrofished from the Bitterroot River.

Survey and Management of Mountain Lakes - Rattlesnake Wilderness Area - Ladd Knotek



Rattlesnake Lake.

Are you up for a high elevation hiking and fishing adventure in a fairly remote area? If so, perhaps the lakes in the Rattlesnake National Recreation Area and Wilderness (RNRAW) are worth a try. In 2006-2011, FWP field crews surveyed 43 mountain lakes (> 1 acre) within the RNRW to evaluate the distribution and quality of fisheries, as well as physical and biological characteristics of the lakes. These surveys consisted of fish and amphibian population assessments, bathymetric mapping, water chemistry measurements, and description of recreational use and access. All of these lakes occur in the upper Grant Creek, Rattlesnake Creek and Gold Creek drainages just north of Missoula.

Surveys revealed a diversity of lake environments, ranging from high, very sterile (oligotrophic) waters positioned within glacial cirques to more productive (mesotrophic), sub-alpine pothole lakes at an elevation range of 6,100 -7,700 ft. Although most of these water bodies are fairly shallow and less than 15 acres, maximum depth and surface area vary significantly. Several lakes exceed 40 acres and are over 100 ft deep.

About 40% of the lakes in the RNRW support trout fisheries. With the exception of two rainbow trout populations and one lake that contains Yellowstone cutthroat trout, westslope cutthroat trout were the only fish species encountered. Most trout populations are self-sustaining; only three of the

sixteen fish-bearing lakes are currently supplemented with stocking. The abundance and size range of trout varies considerably among lakes.

The RNRW also supports an abundance of fishless lakes. Although generally smaller and shallower than lakes that contain fish, these waters are home to a range of other wildlife that may not be as abundant in places where trout have been introduced.

Access to RNRW mountain lakes requires non-motorized travel from one of four major U.S. Forest Service trailheads. A few lakes lie within 2-4 miles of trailheads, but most require a 8-12 mile trek from your vehicle. Fishery information, maps and travel recommendations for individual lakes can be obtained from the FWP Region 2 headquarters in Missoula. A report containing comprehensive survey information and management recommendations will also be available to the public.

Granite County- Brad Liermann

Fisheries management efforts in Granite County in 2011 included completing population estimates on Rock Creek and the Clark Fork River to monitor these important fisheries. Fish population estimates in Rock Creek continue to show that brown trout densities have increased substantially in the past 10 years and now provide a majority of the fishing opportunity in Rock Creek. Rainbow trout numbers appear to be improving slightly in the lower portion of the drainage after experiencing substantial declines due to whirling disease, but more monitoring will be needed to determine whether this increase is truly occurring. Excellent snowpack conditions and high stream flows in Rock Creek over the past five years have provided for favorable conditions for trout populations in Rock Creek that hopefully will continue. Log jams and large woody debris continue to accumulate in new locations on Rock Creek during these high flow years, making floating conditions quite variable. Always plan to check with local fly shops before floating to ensure that a new log jam or other obstruction isn't present in the section you plan to float. Unfortunately, one death did occur on Rock Creek in 2011 on a boat with a very experienced rower at the helm.

May the holes in your net be no larger than the fish in it. — Irish Blessing

Two new monitoring sections were established on the Clark Fork River in Granite County in 2010, and these were monitored again in 2011. These sections were added to provide long term monitoring data for this fishery. These data will be particularly important due to current clean-up efforts underway in the Clark Fork River drainage. Fish population estimates were similar in 2011 to what was observed in the past in these sections, with trout densities being highest in Granite County above the town of Drummond. The reason for lower fish densities below Drummond is not clearly understood. Nonetheless, angling success will likely be higher on the Clark Fork River above Drummond or below Rock Creek. The Clark Fork between Drummond and Rock Creek experiences minimal fishing pressure, which may appeal to anglers wishing to avoid crowds.

Due to favorable late-season snow conditions, Georgetown Lake and many of the other fisheries in Granite County had adequate water to provide quality fish habitat in 2011. In the past, reduced water levels in Georgetown Lake have significantly impacted fish habitat conditions. Due to Georgetown Lake being a relatively shallow, yet very productive lake, low dissolved oxygen levels are common during winter. In years when the lake levels are drawn down significantly, and ice and snow cover the lake for an extended period, low dissolved oxygen levels can occur throughout the profile of the lake (at all depths). Due to trout and kokanee requiring well oxygenated water, these conditions can significantly impact these populations. Fortunately, we had an excellent late season snow pack in the Upper Flint Creek drainage in 2010 providing adequate water in the drainage through the 2010/2011 winter period. Georgetown Lake did experience a long 2010/2011 winter, with ice cover extending well into May. This ice cover appeared to create poor dissolved oxygen conditions in the lake late in the season, but preliminary assessment of gill netting data from fall 2011 does not suggest that trout or salmon populations were severely impacted. Fortunately, the upper Flint Creek drainage had excellent snow-pack again in spring 2011, allowing lake levels to remain high and reduce the risk of fish kills over the 2011/2012 winter period. Thus, high quality fishing for trout and kokanee is expected for Georgetown Lake again in 2012.

Upper Clark Fork - Jason Lindstrom

The Upper Clark Fork fisheries management crew began the 2011 field season by conducting fish sampling on the upper Clark Fork River. We spent the month of April electrofishing four monitoring sections between Warm Springs and Gold Creek. This effort was completed as part of our annual monitoring of fish populations in the upper river.

Brown trout dominate the trout fishery in the upper Clark Fork making up approximately 99% of the trout in the river. Rainbow and westslope cutthroat trout are also present throughout the river, but both species tend to be relatively uncommon.



A relatively uncommon rainbow trout from the upper Clark Fork River.

Throughout much of the Upper Clark Fork upstream of Drummond, we typically measure brown trout densities in the neighborhood of a couple hundred fish per mile (for fish greater than 7 inches in length). The only exception is in the reach immediately below the Warm Springs Ponds, where fish density tends to be much higher due to downstream effects of the highly productive pond system. In 2011, brown trout numbers in most sections of the upper Clark were similar to long-term averages. Fish density near Warm Springs was up from the last couple of low years, but still appeared to be in a state of flux. We are continuing to assess the potential cause(s) for the instability in this section, but it is likely that water quality impairment may be a possible answer.

Also during 2011, we continued to provide assistance to two graduate research projects, which were initiated in 2009 and are now in their final phases. Both of these projects have assisted with restoration prioritization efforts in the Upper Clark Fork. Each of these projects focused on studying broad-scale fish movement. The first was a radio telemetry project that was done on the mainstem of the Clark Fork River. This study followed approximately 200 trout to learn how fish were using river and tributary habitat, as well as what challenges fish were facing in completing their life cycle. We have gained valuable information on where fish are going to spawn, as well as how environmental conditions are affecting fish survival in the river.

The second graduate research project we were involved with focused on fish movement in Silver Bow Creek, a stream that is currently being remediated under Superfund to clean up historic mining contamination. This project used passive integrated transponder (PIT) technology to monitor the movement of large numbers of fish in the Silver Bow Creek drainage. In 2010 and 2011, extensive fish sampling was done throughout the mainstem of Silver Bow Creek to PIT tag fish and to gain insight into changes in the fishery over the length of the stream.



A new angling opportunity south of Deer Lodge. The 35-acre Racetrack Pond.

Finally, 2011 witnessed the addition of a new angling opportunity in the Deer Lodge valley for anglers who enjoy fishing for trout on small ponds. A 35-acre pond near Racetrack was acquired by the George Grant Chapter of Trout Unlimited and transferred to the State. This pond is now open for angling. Initial stocking of westslope cutthroat trout was completed this past summer with hopes that the fish will be large enough to catch in the coming year. Additional stocking of westslope cutthroat trout, as well as sterile rainbow trout, will occur in 2012.

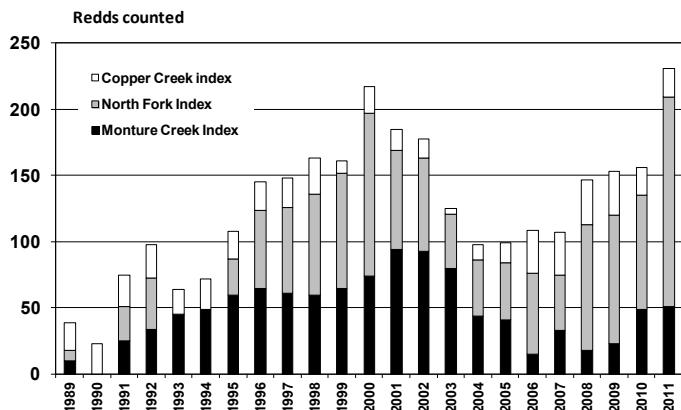
Blackfoot River - Ron Pierce

After seven years of prolonged drought, last year (2011) was the fourth consecutive year of average to above average flow conditions in the Blackfoot River. In the Blackfoot Basin, the status of the bull trout population is perhaps the best index of these changing conditions. During the years of drought (2000-2007) bull trout numbers showed a continuous decline. However, with improved flows and reduced water temperatures, bull trout have made an impressive comeback, as shown by surveys of spawning nests (termed redd counts, see graph below). These redd counts show some improvement in all the three major spawning streams. However, it appears the 2011 redd count in the North Fork was especially high. Here, landowners along with irrigators and conservation groups like Trout Unlimited have worked for 20 years to restore spring creeks, screen irrigation canals, and manage cattle for stream improvements.

Though trout populations and the quality of angling have both improved, there are still many problems influencing fisheries in the Blackfoot River. The most significant environmental problem is upper Blackfoot Mining Complex. The mines were “played-out” by the mid-1960’s, yet the mining waste remains. The mining waste is laced with heavy metals, which have degraded water quality and fisheries in the upper Blackfoot River for decades. The State of Montana and U. S. Forest Service are currently exploring clean-up options that will include the removal of the Mike Horse tailings dam and other wastes, and reconstructing stream channels. Public support is critical to a timely and thorough clean-up, so stay informed and help make the clean-up of the abandoned mine area the best project possible.



This photo shows streamside mine waste along a small tributary to the upper Blackfoot River.



Bull trout redds in the primary streams of the Blackfoot River, 1989-2012.

There he stands, draped in more equipment than a telephone lineman, trying to outwit an organism with a brain no bigger than a breadcrumb, and getting licked in the process.
— Paul O’Neil, 1965

REGION 3 SOUTHWEST MONTANA

Fish Sampling

Every year Montana Fish, Wildlife & Parks fisheries crews use electrofishing techniques to gather data about the state of wild trout populations. Fish population data has been collected by electrofishing on some Montana rivers going back to the 1960's. These are surely some of the longest running sets of data on trout rivers anywhere in the world. Anglers may wonder if the presence of an electrofishing crew on a section of river is going to spoil the fishing on that reach as large numbers of fish are caught and processed.



Electrofishing on the Smith River.

A shocking crew is on any one river section only a few days per year. Timing of sampling is constrained by winter, high spring flows, high summer water temperatures and fish spawning periods. On any given run down a trout river, only about 5% of the fish in that section are caught. The great majority of fish are not bothered much more than what they might be by a standard drift boat floating through. Great effort is expended to reduce any fish mortality caused by shocking. Estimating fish numbers relies on fish living through the process.

The shocking operation is methodical as it works down the river. Generally (depending on the size of the river), one side of the river is worked each day. The crew floats downstream shocking for per-

haps 20 minutes, and then stops for a half hour or so to work fish before doing another run. Knowing this, anglers can avoid the operation. Boating anglers can easily get away by staying above or below the shocker. A wading angler need simply wait until the crew floats through to have them gone for the day. FWP fisheries crews don't like to bother anglers. The idea that fishing on a particular reach is ruined by electrofishing is perhaps more a perception than reality. Shocking crews routinely see fish caught from water they just worked. That may seem far-fetched to some, but anglers shouldn't feel that their day is ruined if they happen to share a river reach with a shocking crew. In the big picture, FWP hopes that anglers keep in mind that the data gathered are important to help maintain Montana's incredible wild trout fisheries.

Mountain Lakes Management in the Big Hole

Mountain lakes offer a very unique and high-quality angling experience, but generally they are not for the faint of heart because of long, steep walks across rugged country. However, when blue ribbon rivers are warm and crowded in the summer time, high mountain lakes with cool breezes, few anglers and eager fish offer a welcomed change from fishing for persnickety trout in popular rivers. Many high mountain lakes prior to the early 1900's were fishless because of natural fish barriers in streams that prevented fish from colonizing the lakes. Since stocking began in earnest in the early 1900's, high mountain lakes became favorite places to stock because within a few years they produced quality fisheries. Much of the early stocking that took place was done by local sportsmen's groups who received fish from federal and state hatcheries. Many of the high mountain lakes that today support self-sustaining fisheries (i.e., do not require stocking because fish can successfully reproduce on their own) exist because of the efforts of many of our grandfathers and their friends who strapped on packs with milk jugs full of fry or led pack strings of horses and mules with the same jugs strapped to their sides up steep mountain trails to secluded lakes. Today, of course, things are done a little differently. Most of the stocking is done by a helicopter fitted with special tanks that release fish directly into lakes with the flip of a switch as the pilot hovers just feet over the water. While the techniques used have changed through time, the goal of creating high-quality

fisheries in mountain lakes still remains the same. High mountain lakes offer a diversity of fishing opportunities that generally cannot be found in other waters such as trophy cutthroat fisheries, fisheries for Arctic grayling and for golden trout. Also, there are few places where an angler can catch a trophy brook trout other than in a high mountain lake.

Because of the importance of these fisheries, mountain lakes management is an integral part of our job. In general lakes can be lumped into three categories for management purposes: 1) fishless lakes that are not managed to create a sport fishery because they are not able to support fish or they have intrinsic value that the introduction of fish may impact (e.g. fishless lakes in designated wilderness areas); 2) self-sustaining lakes or those that have suitable spawning habitat such that fish can reproduce and maintain the population without stocking; and 3) stocked lakes or those that lack suitable spawning habitat and require periodic stocking to maintain the fishery. Within the Big Hole drainage there are 137 named lakes and probably at least as many unnamed lakes. Of the 137 named lakes, 97 contain fish or have been stocked at one time. Obtaining reliable fisheries information from these waters can be difficult. In the past, FWP has relied mostly on angler reports of fishing quality at lakes to determine stocking and management. More recently, (1981, 1982, 1989 and 1992) mountain lake surveys have been conducted using netting to determine the status of the fisheries and determine if the current management is effective. Despite these more recent surveys, still nearly half of the lakes in the Big Hole drainage have never been surveyed.



Hidden Lake.

Beginning in 2008, we have been collecting data from between 10 and 20 lakes each summer to determine the current status of the fisheries. These surveys include setting a gillnet in each lake, a habitat inventory to quantify available spawning areas, an amphibian survey and a qualitative measure of recreational use. These data are then used to better manage the fisheries in individual lakes. For example, Ovis Lake was stocked with cutthroat trout in the mid 1980's, but was never surveyed after the initial fish plant. The lake was surveyed in August of 2009 and found to be fishless with little potential habitat to support spawning. The lake was placed on the stocking schedule and was stocked with westslope cutthroat trout in 2010, and should be producing 12-inch long cutthroat trout this coming summer. The lake will be stocked every 6 years, so it will continue to provide angling opportunities. Another example is Timberline Lake that is stocked with cutthroat trout as well. Surveys conducted in 2009 indicated that the cutthroat in the lake were not as healthy as they should be because there were too many fish. Because of its elevation and low productivity, fish growth is very slow in Timberline Lake, therefore, the stocking frequency was changed from every 4 years to every 6 years, and the stocking density was also reduced. This change should alleviate the overcrowding in the lake and lead to a higher quality fishery down the road. Other currently fishless lakes are being considered for golden trout introduction to increase the opportunity to catch this favorite fish of high mountain lake anglers. As more lakes are surveyed, FWP will be better



9 year old Yellowstone Cutthroat Trout, 2011.

able to manage these fisheries. Further, FWP will be able to provide anglers with information on the status of these high mountain lakes so they can plan trips to go after whatever they seek among the solitude and thin air of alpine lakes.

Upper Yellowstone River Update

After two very large water years, the upper Yellowstone River continues to support strong numbers of rainbow, brown and Yellowstone cutthroat trout. As a result of the large spring runoff in 2011, FWP was unable to complete any population estimates on the Yellowstone River. However, FWP was able to do some survey work in spawning tributaries to the Yellowstone, and abundance of all species appears to be similar to previous years. The spring runoff event may have affected recruitment of this year's fry. Many of the tributaries experienced extremely high runoff, which contributed to a significant amount of scour and extended periods of high water. Survey efforts over the next two years should help FWP gain insight into the effects of the 2011 runoff. FWP continued the Yellowstone cutthroat trout Floy™ tagging effort during 2011. Tagging began in 2005, and FWP used this information to understand movement of fish throughout the river. In addition, FWP can determine growth rates when a tagged fish is recaptured. The tags are yellow and located behind the dorsal fin. If you happen to catch one of these fish, please note the tag number (YSR followed by four digits), date, length and weight, and the location the fish was caught, and report this information to your local FWP office or online at <http://fwp.mt.gov/fishing/guide/taggedFish-Form.html>.

In 2011, the Shields River also experienced an extremely large runoff. There were many locations where the river banks were eroded (in some cases entirely new channels were created). This event caused large amounts of river substrates to be redistributed throughout the system. FWP's spring sampling prior to runoff indicated that abundance of rainbow, brown and Yellowstone cutthroat continued to be stable compared to previous years. FWP did see an increase in the number of Yellowstone cutthroat trout in the Shields River near its mouth. Since FWP's monitoring methods are most effective on larger fish (6- to 8-inches long and longer), determining the effect of the 2011 run-



Rainbow trout on the Yellowstone River.

off on fish populations will require further monitoring over the next two years. Yellowstone cutthroat trout were also tagged with Floy™ tags, identical to those in the Yellowstone River. The new fishing access at Grannis, on the lower river, is now open and provides walk-in access to the Shields River. This is the first State-owned public fishing access site on the Shields River.

Flooding on the Shields River in 2011.

As part of FWP's work with Yellowstone cutthroat trout, a large amount of survey work was conducted on tributaries to the Yellowstone River in 2011. The intent of these surveys was to determine the current distribution of Yellowstone cutthroat trout and other species, such as rainbow, brown, and brook trout. FWP collected genetic samples from Yellowstone cutthroat trout that will allow for determination if hybridization (with rainbow trout) exists in the waters that were sampled. As mentioned earlier, many of the tributaries experienced very high and



Flooding on the Shields River in 2011.

extended periods of runoff in 2011. FWP noted a tremendous amount of scour and down-cutting in these systems that may have impacted the spawning success of both rainbow and Yellowstone cutthroat trout. Future monitoring will determine the true effects.

Region 3 Grayling and Cutthroat Trout Projects

Balancing Native Species Recovery with Sport Fishing Opportunity

The Region 3 Fisheries Program has the privilege of managing streams, rivers and lakes that form the headwaters of the Yellowstone and Missouri rivers. Five management biologists attempt to maintain or improve the health of rivers like the Big Hole, Beaverhead, Ruby, Madison, Gallatin, Jefferson, Missouri, Shields and Yellowstone Rivers with a focus on maintaining over one quarter of all angler days in the State of Montana. In a nutshell, management biologists strive for healthy streams to provide opportunities to go fishing.

Management biologists also have a responsibility to recover struggling native species throughout Montana's waters. Region 3 has focused the talents of specialists in native fish recovery, and the past several years of effort by two special projects biologists focused on grayling and cutthroat restoration in Region 3 has made a significant difference for these fish. Unfortunately, the region has lost (to new jobs) two dedicated professionals that have guided native species recovery like mother hens in chest waders.



Jim Magee meets with a landowner in the Big Hole River Basin.

Jim Magee's passion for grayling recovery in the upper Missouri had an 18-year run before he accepted a job with the U.S. Fish and Wildlife Service in 2011. Luckily, Jim Magee continues to work on fisheries and wildlife issues in Southwest Montana.

Lee Nelson's drive to reverse a declining trend for westslope cutthroat lasted 12 years before he accepted a promotion with FWP. Lee Nelson's



Lee Nelson handles a Yellowstone cutthroat trout near the Crazy Mountains.

promotion will allow him to focus on native fish conservation at a state-wide level.

Jim Magee and Lee Nelson were particularly effective at attracting the help of state and federal agencies, landowners, angler groups and others to accomplish the following:

Westslope Cutthroat Trout (Southwest Montana)

- Number of tributaries where cutthroat were restored = 38
- Miles of stream with new cutthroat populations = 155
- Miles of stream historically occupied by cutthroat = 10,484
- Miles of stream currently (2011) occupied by cutthroat = 433

Grayling

- Number of habitat-restoration projects: 62
- Miles of stream and riparian habitat restored: 41
- Miles of stream with new grayling populations: 60
- Number of grayling brood stocks developed: 2
- Number of landowners with grayling-friendly conservation plans: 33

Although not completely gone, Region 3 has lost two fieldwork leaders this year, and these two biologists knew how to get things done for the people and fish of Montana!

Without question, these two biologists made a difference on the ground, and in the short term, it

is less likely that grayling and cutthroat will face extirpation. In the long term, working relationships that Jim Magee and Lee Nelson built over a sustained period of time provide a path for new faces to carry on the recovery of two of Montana's most treasured fish species.



Recently constructed fish barrier on Leverich Creek near Bozeman.



Habitat restoration on the Upper Big Hole River.

Madison River Rainbow Trout Radio Telemetry

In September 2009, 35 Madison River rainbow trout were implanted with radio transmitters to compare spawning-season movements to a similar study conducted in 1999 (Downing et al. 2002). The transmitters in the current study were on 13 hours each day, with a rated battery life of two years. Transmitters were implanted in fish captured during routine fall electrofishing in the Pine Butte, Snoball and Varney sections. Additionally, rainbow trout between Burnt Tree and Ennis FAS were captured in fall 2009 for implantation. Relocations were conducted from a fixed-wing aircraft, from a raft, or from roads along the river.



Implanting a radio transmitter into a Madison River rainbow trout.

Figure 1 illustrates documented movement greater than 0.2 miles of mainstem-spawning radio-tagged rainbow trout in the Madison River from March through July, 1999, versus 2010 and 2011. In 1999, 13 of 32 relocated rainbow trout exhibited movement greater than 0.2 miles versus 27 of 33 relocated fish in 2010 and 5 of 18 relocated fish in 2011.

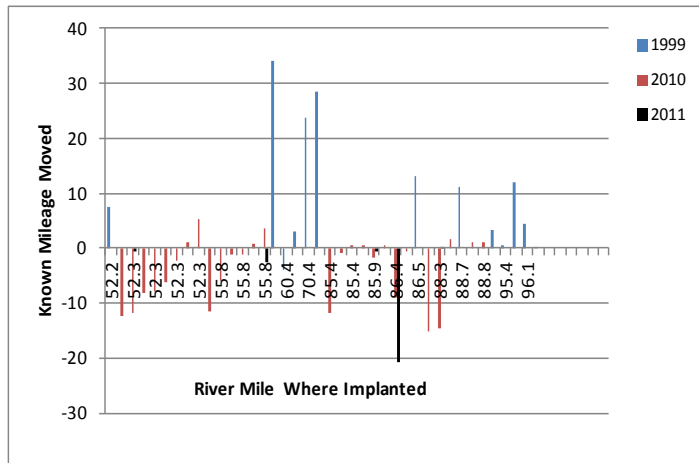


Figure 1. Known mileage moved by radio tagged rainbow trout March through July, 1999, 2010 and 2011. 2011 movements are from the last known 2010 location. Negative values indicate downstream movements, positive values indicate upstream movement.

In 2010, four rainbows exhibited initial upstream movements of 7.4, 9.1, 12.0 and 31.7 miles, then descended downstream for respective net movements of 5.4, -1.7, -11.5 and 3.7 miles (negative numbers indicate net downstream movement).

One rainbow that moved less than 0.2 miles in 2010 ascended 1.0 mile upstream from the tagging location in 2011. Also, 5 of the 27 rainbow trout tracked in 2010 exhibited movement greater than 0.2 miles, 10 exhibited movement less than 0.2 miles, and 12 were either never located or their transmitter was recovered. One of the five fish that moved in 2011 descended 20.7 miles, while none of the other four exhibited movement more than 2.5 miles. Two rainbow trout were relocated in the Bypass reach below Ennis Dam, exhibiting downstream movements of 11.3 and 12.8 miles, including moving through Ennis Reservoir.

From March through July 1999, Downing (2000) documented rainbow trout spawning in the Madison River between river mile 45.3 (south shore of Ennis Reservoir) and river mile 109.1 (Hebgen Dam). He found that 17 of his radio implanted rainbow trout spawned in the mainstem river during that period, 13 upstream of Lyons Bridge (river mile 88.3). One of those ascended above Quake Lake to the vicinity of Cabin Creek. Nine of the 13 were captured, implanted and released upstream of Lyons Bridge. The other four moved upstream from locations 2.5 (near Moose Creek) to 34.2 (near Varney Bridge) miles below Lyons Bridge. Downing documented four other implanted rainbow trout spawning in the mainstem within 0 – 7.4 miles of their release locations near Moose Creek, 1.5 miles upstream of McAtee Bridge, just below Varney Bridge, and 0.5 miles upstream of 8-Mile Fishing Access Site. He also documented four fish that moved into tributaries to spawn. Two of those fish made significant upstream movements from their September 1998 capture and release site just below Varney Bridge into Gazelle and Freezeout creeks in the West Fork Madison drainage, movements of 31.1 and 40.3 miles, respectively. One moved 5.8 miles downstream from its capture and release site, then ascended Squaw Creek 2.6 miles to spawn. The fourth rainbow moved 1 mile downstream then ascended 6 miles up the West Fork Madison to spawn. Downing (2000) found only one of the 17 mainstem river spawning rainbow trout showed downstream movement of more than one mile during the 1999 spawning season (March – July), while six showed movements of less than one mile either up or downstream, and 10 showed upstream movements of more than one mile.

None of the rainbow trout involved in the 2010 – 2011 monitoring effort were documented to have ascended higher than river mile 95.0. The one fish that did ascend to river mile 95.0 was captured and implanted in September 2009 at river mile 85.9 (9.1 miles downstream of RM 95.0). This fish ultimately exhibited a net downstream movement of 1.7 miles.

Reference locations are:

River mile 40.3 – Ennis Dam
 50.6 – Highway 287 Bridge at Ennis
 59.7 – Varney Bridge
 74.6 – Ruby Creek
 89.6 – West Fork Madison
 101.4 – Quake Lake outlet

Fishing Access Site and River Recreation Programs

In July 2011, the Fishing Access Site (FAS) and River Recreation programs were transferred from the Parks Division into the Fish & Wildlife Division of FWP. This change prompted many adjustments for all staff involved. As part of the transfer, Fisheries gained many valued employees. Ray Heagney transferred from Headwaters State Park to the FAS coordinator position, and Cheryl Morris was promoted from R3 administrative support to be the River Recreation Manager. Region 3 fisheries is excited to work with all of the new staff, and is particularly interested in managing the FAS and River Recreation programs, as they are important programs to anglers in Montana.

The runoff of 2011 caused many maintenance issues for R3 FASs'. As a result, many were closed to the public until repairs could be completed. One example is Shed's Bridge FAS on the Gallatin River near Four Corners. The Gallatin River eroded



Shed's Bridge Fishing Access Site Flooding Damage.

much of this small FAS away on the left bank of the river. After the waters receded, a raw 10-foot high bank existed. No easy solutions exist to remedy this problem; thus, the FAS is still closed to the public.

Two fishing access sites were added in R3 during 2011. They are the Logan FAS near the town of Logan on the Gallatin River, and Damselfly FAS near the mouth of Cherry Creek on the Madison River. FWP is currently in the process of designing a development plan for the Logan FAS, and the site development for Damselfly FAS was completed in the fall of 2011.

The R3 FAS program is developing a database that will reflect the elements and associated attributes of each fishing access site in the region. Over the course of the past four months, individual FAS profiles were completed by the R3 FAS staff. These profiles inventoried the current conditions and overall physical attributes at each site. From this benchmark, FWP expects to set high, medium and low priority sites based on use and facility impacts. FWP's objective is to track various types of activities, operational costs, enforcement, visitor use, commercial outfitter use, weed control, maintenance, capital improvements, etc. With this database, FWP will be able to generate timely queries and status reports for any combination of topics, for any given FAS.

The River Recreation program experienced difficulties during 2011, since both river rangers and the River Recreation Manager took positions outside of FWP. Cheryl Morris came on board in August, and is quickly coming up to speed on management of the commercial use of the Big Hole, Beaverhead, and Madison rivers. Upcoming in 2012, FWP will initiate a River Recreation Management Plan for the Madison River.

REGION 4 NORTH CENTRAL MONTANA

Great Falls Area - Grant Grisak

Deep snow pack coupled with extended spring rains produced an abundance of water in central Montana during 2011. Extensive flooding occurred here on several rivers and streams. Peak flows

on the four major rivers and streams were: Smith River at Eden gage - 5,710 cfs on June 10; Sun River near Vaughn gage - 14,800 cfs on June 10 (the fourth highest flow on record); Missouri River at Ulm - 28,800 cfs on June 11 (the third highest flow on record). The estimated peak flow on Belt Creek at Riceville was 2,090 cfs on June 9.

Missouri River

The Missouri River continues to be a major attraction for anglers in central Montana. Biologists conduct population estimates of brown trout in May because many of the rainbow trout are in the tributaries spawning. In the Craig section, the estimate of brown trout >10 inches was 537 per mile. The 30-year average is 562 per mile. The largest brown trout was 24.1 inches long and weighed 5.7 pounds. We sampled 41 walleyes and 13 burbot. In the Cascade section, the estimate of brown trout >10 inches was 909 per mile. The 28-year average is 378 per mile. We sampled 2 walleyes and 14 burbot.

Rainbow trout population estimates are conducted in October because most of the brown trout are in tributaries spawning. In the Craig section, the estimate of rainbow trout >10 inches was 6,034 per mile, which is the highest on record. The 30-year average is 3,036. We sampled 169 walleyes and 120 burbot in the Craig section. In the Cascade section, the estimate of rainbow trout > 10 inches was 2,161 per mile. The 28-year average is 1,506 per mile. The largest rainbow was 23.7 inches long and weighed 5.15 pounds. We sampled 37 walleyes and 33 burbot in the Cascade section. The largest walleye was 13.95 pounds and 32.5 inches long.

One of the most striking features on the Missouri River in 2011 was the rainbow trout estimate in the Craig section. During the estimate, we sampled the highest number of rainbow trout (5,583) that have been handled over the 30-year period of record. Normally we sample a small number (~20) of rainbow trout of hatchery origin that spill over Holter Dam, but in 2011 20.2% (1,130) of the fish we sampled were of hatchery origin. We were able to calculate an estimate of 1,605 hatchery fish per mile. On this basis, the actual number of wild fish in the 2011 estimate was 4,429, which is the second highest on record. The high number of

wild fish was not entirely unexpected. In the past few years we observed higher numbers of 8 and 9 inch rainbow trout, suggesting a possible increase in the adult population. The results of the 2011 population estimates confirm that these fish successfully recruited into the adult population.

There's nothing fun about fungus! For the second year, elevated water temperatures in the Missouri River during the fall have contributed to a higher incidence of "Saprolegnia" fungus on brown trout. In October 2011, anglers reported seeing brown trout with large cotton-like patches on their bodies and some dead fish in spawning tributaries. Fungus can manifest when trout lose their slime layer, which is their natural defense against many pathogens. Trout lose their slime layer while digging nests (female) and defending territories (male) during spawning. Under normal conditions, replenished fat reserves and cooler water temperatures allow fish to regain their health and produce enough slime to ward off fungus. An evaluation of the temperature data showed water temperatures were 3.7°F higher than normal for a 24-day period in October. The low number of dead fish observed by biologists indicates the fungus outbreaks in 2010 and 2011 will likely not have a lasting impact on the brown trout population.

Largent Bend FAS

Regional staff have been working to develop the Largent Bend Fishing Access Site, located 4 miles west of Vaughn. Fisheries crews stocked brook trout in ponds 2 and 3, largemouth bass in pond 2, and black crappie in pond 3. In May, fisheries crews trapped 83 adult black crappie (pictured)



Adult crappie transferred to Largent Bend FAS pond 3.

from Pelican Point Pond and relocated them to pond 3 at Largent Bend FAS. In October, crews surveyed pond 3 to evaluate the crappie transfer and found these fish had successfully spawned. Young-of-the-year crappie averaged 43 per trap.

Smith River

In 2011, biologists estimated the number of rainbow trout greater than 8 inches in the Eagle Creek section at 250 per mile, and the number of browns at 250 per mile. The 32-year average is 506 for rainbows and 311 for browns. The Smith River had higher than normal water flow this year. During the annual trout population estimates in September, fisheries crews observed several deep holes in the electrofishing section that had filled in with gravel, with other subtle changes in the channel throughout this section.



A typical brown trout from the Smith River.

Ongoing studies in trout behavior funded by the Canyon Ranch and PPL Montana showed some interesting movements of fish implanted with radio transmitters. One example of long distance movement was demonstrated by a female rainbow trout measuring 17.5 inches. This fish was surgically implanted with a radio transmitter in the Missouri River on March 11 near the mouth of the Smith River. Over the next 41 days, this fish entered the Smith River, swam 80 miles upstream to Sheep Creek, swam up Sheep Creek 16 miles, and spawned between May 6 and May 31. It slowly descended to the mouth of the Smith River. Over a 180-day period this fish traveled 193.4 miles. Studies like this help demonstrate that the Smith River and its tributaries continue to be important habitat for the trout populations in the lower Missouri River.

Belt Creek

For the third consecutive year, fisheries crews conducted estimates of rainbow trout, brown trout and mountain whitefish in Belt Creek in Sluice Boxes State Park. This year, the estimates of fish > 8 inches were similar to the past 4 estimates, with rainbow trout at 306 per mile, brown trout at 119 per mile, and mountain whitefish at 108 per mile. Based on this short term data set, biologists believe the trout and whitefish populations are stable. There was evidence of substantial channel changes in Belt Creek this year due to the flooding. Numerous large deep holes had been filled with gravel, shallow water areas had been deepened, and numerous historical mining artifacts were exposed in the stream channel and along the banks.

Westslope Cutthroat Trout – David Moser

It was a busy and productive year for restoring westslope cutthroat trout in Region 4. Westslope cutthroat trout – the only native trout in the Missouri River Drainage – are currently threatened by hybridization with rainbow trout and competition with brook trout. The only feasible way of protecting and restoring pure westslope cutthroat trout is to find streams with waterfall barriers or construct man-made barriers that will block upstream movement of non-native fishes into westslope strongholds.

Several projects are currently underway which restore westslope to historical habitats. One such project is located at Jumping Creek, a small tributary to Sheep Creek in the Little Belt Mountains on Lewis and Clark National Forest. A fish barrier was constructed in Jumping Creek by blasting existing bed rock into a waterfall. Non-native brook trout that had displaced a pure westslope population were then removed with a fish-killing pesticide. In 2011, eggs were collected from a remnant pure population of westslope in the Castle Mountains, were fertilized, and were outplanted in artificial redds placed in Jumping Creek. This is the second year westslope have been introduced into Jumping Creek, and the results look very promising.

Another project is underway in the Highwood Mountains. A barrier site was identified approximately one mile upstream of the North

Fork Highwood trailhead. Funds for construction of a fish barrier were obtained from numerous competitive granting agencies, that is PPL Montana, FWP Future Fisheries, National Fish and Wildlife Foundation, Montana Trout Foundation, and the Missouri River Fly Fishers. After construction of the fish barrier, surveys of the upper-most reaches of North Fork Highwood Creek revealed the presence of a remnant, pure population of westslope. This serendipitous discovery of a pure population upstream of the newly constructed fish barrier is ideal. We will be able to protect this population from non-native competitors and hybridizing species and allow it to expand downstream into nearly five miles of extremely productive habitat. Historically, Highwood Creek supported westslope cutthroats in about 55 miles of stream. At present, only two populations survive in less than 2 miles of stream. This project, when completed, will go a long way toward preventing the extinction and preserving the genetic legacy of these Montana natives.



Native westslope cutthroat trout (Castle Mountains) collected as an egg donor for Jumping Creek, 2011.

A project aimed at restoring westslope cutthroats to native habitat is also underway on Smith Creek, a small tributary to Highwood Creek flowing through private land and the Lewis and Clark National Forest. A barrier constructed on Smith Creek in 2010 and 2011 was made possible by a landowner interested in native westslope restoration and by the opportunity the Candidate Conservation Agreement (US Fish and Wildlife Service and FWP) affords. By being a signatory to the Candidate

Conservation Agreement with Assurances, the landowner is exempted from any potential regulatory restrictions should westslopes ever be listed under the Endangered Species Act. This agreement is a boon for westslope restoration, and the hope is that other landowners will want to restore the westslope cutthroat, a unique piece of Montana's State heritage, to other waters. Smith Creek upstream of the new fish barrier is currently fishless and will be stocked with native westslopes obtained from one of the last two remaining populations in the Highwood Drainage. When the project is complete, over three miles of historic habitat will have been restored.

Other ongoing restoration efforts include restoration of Lake Creek and Crater Lake in the Little Belt Mountains and continued restoration of Cottonwood Creek in the Beartooth Wildlife Management Area. A gabion fish barrier was constructed at the mouth of Crater Lake in late 2010. In the summer of 2011, nonnative hybrid fish were removed with a fish-killing pesticide. The barrier will raise levels of Crater Lake to historical levels (nearly 8 ft) and provide for an adfluvial (lake-dwelling) population of pure westslope. Additionally, this is the second year of westslope transfers to Cottonwood Creek. Eggs were collected from spawning westslope cutthroats in a separate Upper Missouri river tributary, fertilized, and outplanted in artificial redds. Sampling of Cottonwood Creek in 2011 revealed that westslopes from the first transfer in 2009 had reached an average length of 11 inches.

Additional work related to westslope restoration in Region 4 included genetic sample collections from the Upper Two Medicine Drainage, the South Fork Deep Creek, which is located in the headwaters of the Teton River, and post-flood repairs of a fish barrier constructed in 2006 on the South Fork Judith River. Efforts to restore westslopes to the South Fork of the Judith River are looking promising. After construction of the fish barrier in 2006, non-native hybrids, rainbow trout and brook trout were removed from 16 miles of stream by electrofishing. From 2008 to the present, the South Fork has been stocked with hatchery westslopes in an attempt to maintain populations at a high level of genetic purity. Sampling in recent years shows that the majority of fish in the South Fork are either stocked, pure westslopes or very slightly hybridized progeny of stocking efforts.



Newly constructed fish barrier, Smith Creek, 2011.

Canyon Ferry - Adam Strainer

2011 was quite a year for Canyon Ferry Reservoir. New fishing regulations were implemented for the reservoir, including a decreased bag limit for walleyes (10 daily and 20 in possession, only 4 greater than 16 inches and only 1 over 28 inches), catch and release regulations for brown trout (except anglers under 14 years of age) and a no-limit regulation on northern pike (extending from the confluence of the Madison and Jefferson Rivers to Holter Dam). Also, an above average snowpack, combined with a cool and wet spring, caused extremely high reservoir levels from early spring to late fall. As a result, FWP population monitoring for rainbow trout, walleye and yellow perch reaffirmed certain trends and revealed some new ones.



Newly constructed fish barrier, North Fork Highwood Creek, 2011.

Management direction for the entire Canyon Ferry fishery is outlined in the Upper Missouri River Reservoir Fisheries Management Plan 2010-2019 and can be found at <http://fwp.mt.gov/fishing/management/upperMissouriRiverPlan.html>. Below are some population trends from 2011 sampling and how some species stack up in relation to goals set in the Management Plan. As stated in the Management Plan, FWP will evaluate the success in meeting these management triggers (catch rates in nets) as part of an “adaptive management” approach. Depending on the species, changes to fishing regulations, stocking rates, or habitat enhancements may be necessary actions to better meet management goals.

Walleye fishing was pretty good last summer despite a slow start. The summer creel found the highest angler catch rate on record for both general anglers (0.21 fish per hour) and anglers targeting walleyes (0.49 fish per hour). The catch rate for anglers targeting walleyes is higher than those found in almost 90% of over 1,000 creel surveys conducted in the western, mid-western and Canadian walleye waters. The average walleye caught on Canyon Ferry in 2011 was 13.2 inches and 0.92 pounds, but trophy walleyes (greater than 30 inches) continue to draw anglers. Twenty-four percent of all summer anglers surveyed identified walleye as a target species, and another 13.7% identified some combination of walleye, yellow perch and trout as a target species.

Fall walleye population monitoring saw an increase in abundance from 3.5 walleyes per net in 2010 to 5.6 per net in 2011. Despite this increase, walleyes remain below management objectives (3-year average of 5.0 walleye per net), even though their abundance has steadily increased since 2009. Average size was still low, but the number of 15 to 20 inch fish increased 40% from 2010 to 2011, indicating that the strong 2008 age class is slowly growing (compared to the good old days) and continuing to survive. The average relative weight (fish “plumpness”) of walleyes also increased for the second year in a row. Increases in relative weight normally correlate to an increase in the forage base, which was the case for Canyon Ferry in 2011 (see the yellow perch section below). Increases in relative weight also tend to correlate to lower angler catch rates. Typically,

trophy fish don't lack for a forage base, making them a bit more of a challenge to catch.

The annual spring walleye spawning survey, using large trap nets between Duck Creek Bay and Pond 1 on the east shore, was difficult in 2011 due to low reservoir levels and cool and wet conditions. However, FWP personnel were able to tag (tags are blue in color) 605 “new” fish between April 12th and May 9th. The best capture date in 2011 was on April 20th (full moon) when 202 walleyes were tagged. Overall, the walleyes captured in 2011 averaged 14.5 inches; the largest female captured was 30.6 inches and 13.5 pounds. The cool spring temperatures didn't appear to provide optimal walleye spawning conditions, but the rapid filling of the reservoir and flooding of vegetation provided excellent nursery habitat. Although it appears there were not a remarkable number of fish hatched, good survival of those that were hatched was due to increased necessary cover from high water levels.

Rainbow trout fishing was good throughout 2011 and at times downright excellent. Anglers targeting rainbow trout in the winter saw an angler catch rate of 0.32 fish per hour, and during the summer that number increased to 0.42 fish per hour (tied for 2nd highest on record). The average length of rainbows caught by anglers remained above average at 18.2 inches, and approximately 40% of all the anglers surveyed in 2011 (winter and summer) identified rainbow trout as their target species.

Fall population monitoring revealed an increase in the number of rainbows per net from 2.6 in 2010



Lane Hengle Merwins, 2011.

to 3.6 in 2011. Rainbow trout numbers per net are below management objectives (3-year average of 5-6 rainbow trout/net), but rainbow numbers have slowly increased over the past two years, and anglers have continued to see good rainbow fishing.

Canyon Ferry Reservoir was planted with its annual complement of approximately 300,000 rainbow trout in 2011. One major stocking change was made to accommodate construction at FWP's Big Springs Hatchery near Lewistown. Approximately 100,000 rainbows (Arlee strain), averaging just less than seven inches, were planted in July instead of the normal October timeframe. Stocking rainbow trout at lengths greater than eight inches to avoid predation appears to be working well, with good survival of both spring and fall plants, and will continue when hatcheries can accommodate the request. Rainbow trout limits remain at 5 daily and 10 in possession.

Yellow perch anglers saw the lowest catch rate (0.26 fish per hour) on record for Canyon Ferry over the winter of 2011. However, the few perch that were caught averaged 9.9 inches and 0.54 pounds. Canyon Ferry continues to be one of the most popular winter fisheries in Montana, and large yellow perch play a major role in maintaining the winter fishery. Thirty-two percent of winter anglers in 2011 identified yellow perch as their target species.

Yellow perch abundance reached nearly historical lows at 0.8 per net in summer 2011, down from 2.1 per net in 2010. Adult yellow perch numbers have been in decline since 2002. Yellow perch are far below management goals (3-year average of 10.0 per net) and remained under the lower management trigger of 3.0 fish per net as defined in the management plan. Yellow perch are essential in that they provide the forage base for the reservoir, and are also an important component to the winter ice fishery. If perch abundance remains below trigger thresholds, additional management actions, such as more restrictive regulations, large-scale habitat enhancement, or adjusting walleye limits may be necessary to further conserve perch.

On a positive note, young-of-the-year yellow perch were sampled at their highest mark (222.8 per net) since 2002 during the 2011 beach seine survey. Much like walleyes, newly hatched perch

seemed to benefit greatly from the high summer reservoir levels and nutrient flush into the reservoir. Based on historical data, beach seine numbers greater than 200.0 fish per net typically translate to increased perch numbers in gillnets the following summer. So, FWP is looking forward to the 2012 population monitoring surveys to see if that trend holds true. Remember, the regulation for yellow perch in Canyon Ferry is 15 daily and in possession.

Northern Pike (Upper Missouri River Reservoirs)

Canyon Ferry Reservoir has historically produced northern pike in very low densities; however, an increased abundance has been identified by FWP personnel over the past few years. Numerous pike are being caught in the Missouri River upstream of Toston Dam, juveniles have been sampled in Canyon Ferry Reservoir by crews conducting annual beach seine surveys, and adult pike have been sampled by anglers and FWP personnel in Canyon Ferry, Hauser and Holter Reservoirs. A growing pike population would create additional pressure on an already limited forage base. Aggressive pike suppression measures, such as habitat manipulation, targeted removal during spawning, spearing, or other measures, may be warranted. Additional monitoring and research is currently underway to address the increased basin-wide abundance levels.



Eric Roberts - Northern Pike.

There are many opportunities for volunteers to get involved with FWP on Canyon Ferry Reservoir throughout the year. If you're interested in volunteering or have any questions or concerns, contact Adam Strainer at (406) 495-3263 or email astrainer@mt.gov.

Hauser Reservoir – Eric Roberts

Hauser Reservoir, like the rest of the Missouri River system, saw another sizeable flush of water in 2011. Although flushing is generally beneficial for fish and habitats in the rivers, it sometimes has negative effects on reservoir fisheries. Since Hauser is managed as a run-of-the-river reservoir (meaning there is little water storage capacity), it is more susceptible to flushing than other area reservoirs. One benefit in 2011 was that many of the rainbow trout planted during the spring in Canyon Ferry were flushed downstream, resulting in a 19% increase in rainbow abundance in Hauser. This also led to better fishing, with a pretty good rainbow bite there throughout the year.

Walleye abundance in Hauser Reservoir is heavily influenced by flushing. Prolonged spill over Canyon Ferry Dam during high spring flows flushes thousands of juvenile walleyes into Hauser. Walleye numbers in 2011 increased to near record levels, which put more pressure on the limited forage base in the lake. Yellow perch are the preferred prey item for walleyes, and perch abundance reached near record low levels in 2011. The declining perch population severely limits walleye growth, leading to lots of small, hungry walleyes.

There is still a trophy component to the Hauser walleye fishery, with a few 10+ pound fish caught annually. Lake Helena, which is connected to the Causeway Arm of Hauser, provides some excellent walleye fishing from about early May through mid June. During this late spring window of opportunity, lots of nice-sized walleye and a few trophies can be caught. By late June, the vegetation is dense enough to make it virtually impossible to effectively fish. Lake Helena can be accessed at the Lake Helena Fishing Access Site, just off the Lincoln Road. The boat ramp is best suited for small boats (max depth in Lake Helena is about 9 feet).



Lake Helena Fishing Access Site.

Holter Reservoir – Eric Roberts

Much like Hauser Reservoir, Holter also felt the effects of flushing in 2011. Some rainbows that were stocked earlier in the year were flushed down river, resulting in a decline in rainbow abundance in the reservoir. However, there was little effect to the fishing, as the rainbow bite was good all year long. Shore fishing for rainbows was red hot in the spring just about anywhere there was enough space to stand. Boat anglers did well trolling crankbaits, and the bite switched to cowbells as the summer progressed. There will be some short-term changes to the Holter stocking plan in 2012 due to construction at the Big Springs State Trout Hatchery in Lewistown; however, additional fish stocked in fall 2011 and scheduled plantings from other hatcheries in 2012 should ensure maintenance of the quality of the rainbow fishery.



Holter Lake.

Walleye numbers increased a bit in 2011, which may be a function of flushing of juveniles from upstream reservoirs. FWP is closely monitoring regulations implemented in 2011 intended to increase harvest of smaller-sized fish, while preserving a trophy component of the fishery (10 fish daily, only 1 fish over 28 inches. No harvest of fish between 20-28 inches). A reward tagging study was implemented in 2011 to determine the effects of angler harvest to the population under the new regulations. In spring 2011, 250 walleyes were tagged with \$75 reward tags during monitoring in the spring spawning season. Angler tag returns were sent in at a fairly steady rate throughout the summer, and by year's end, nearly 50% of the reward tags had been returned for the \$75 reward. The vast majority of returns were from small fish (less than 15 inches), so early results indicate that angler harvest may effectively

reduce numbers of small fish. However, that reduction in numbers may also be offset by fish that are flushed in during years with high flows. The reward tagging study will continue in 2012, with plans to tag another 250 walleyes in the spring. This research study is funded largely by PPL-Montana.

Walleye fishing was pretty good in 2011, especially during high spring flows through the canyon. Flows in the upper reservoir were high enough that fishing the canyon was more like fishing a flowing river. Fish would find refuge in holes and back-eddies behind large boulders. Anglers who found these hiding spots did very well setting anchor and jigging. Later in the summer, the walleyes seemed to move to flats 10-20 feet deep or below clay bluffs.

Yellow perch fishing was slow in both the winter and summer of 2011, but the fish caught were nice-sized. FWP monitoring surveys had similar results, with nearly record low perch abundance, but a few nice (12+ inch) fish caught.

Helena Valley Regulating Reservoir **– Eric Roberts**

The mystery continues on the Regulating Reservoir. Ice fishing for kokanee salmon was poor for the third consecutive year. FWP continued to monitor flushing of fish down the irrigation canal, and for the second consecutive year found that flushing of juvenile fish down the irrigation canal was minimal. Although it is also known that adult fish do flush down the canal, the majority of those fish appear to be mature fish at the end of their life cycle and of limited value to the sport fishery (the fishery is sustained through annual spring and fall stocking). Summer netting surveys show a good distribution of fish across several age classes, and nearly record high abundance of kokanee in gillnets. Although the winter fishing was poor, summer fishing wasn't too bad. Anglers were fairly consistent at picking up a few fish trolling cowbells early mornings in the spring and early summer. The fall snagging season was very productive, with anglers snagging fish in the canal as well as on the main lake. So the fish are there, but for reasons currently unknown, lately they have been fickle about biting in winter.

The Regulating Reservoir Fishing Access Site is located just east of Helena off York Road. If you plan on boating, bring an electric motor, as gas powered engines are not allowed.

Lewistown Area – Anne Tews

Flooding was the big story in central Montana in 2011. The Missouri River, Musselshell River, Judith River and their tributaries flooded. This flooding caused channel widening, meander cutoffs and gravel deposition in the flood plain and river channels. Cottonwood seedlings have emerged on much of the floodplain in the big river systems. Huge channel changes to the Judith River and the Musselshell River, and on smaller streams such as Cottonwood and Rock creeks, were caused by the floods. After the flood waters receded, electrofishing catch rates on the Missouri River were similar to long term averages for most game species. One exception was channel catfish, which were captured at record high levels near Fred Robinson Bridge.

Big Spring Creek had the highest flows seen in decades, and base flow was about 50% greater than the 10 year average. Late summer population estimates found brown trout at close to record high numbers. Trout greater than 10 inches had about average numbers on the lower creek and were above average upstream from Lewistown, a trend similar to the last few years. Rainbow trout reproduction below Lewistown appeared to be extremely low in 2011.

The flood control reservoirs upstream of Lewistown performed as designed when hit by high water this spring, but when the emergency spillway on East



Big Casino Creek Reservoir Fishing Access Site Flooded in late May.

Fork Reservoir spilled, there was some flooding in Lewistown. Road repairs to East Fork had not been completed as of December 2011. The out-house, access road and picnic area also flooded at Big Casino Creek Reservoir: those facilities have been opened for several months.

East Fork Reservoir – Anne Tews

The emergency spill was likely 3 times higher than the main outlet flow during the flood peak around May 23, 2011. When the high water receded, some areas of the upper reservoir had silted in. It seems likely that many fish went downstream during the spill, but record high numbers of small northern pike were captured in fall gill nets. The pike were generally small, around 20 inches, and less than two pounds. Two 6 pound pike were netted. Yellow perch in nets averaged over 8 inches long, a record high for the last decade. Catch rates were higher than 2010 but less than average. Several large brook trout were caught, a first for East Fork Reservoir. The City of Lewistown is in the process of obtaining permits to drain East Fork Reservoir late in 2012. The draw-down will have major impacts on the East Fork fishery.



East Fork Reservoir spill on May 23, 2011. The spillway was designed for a 100 year plus event.

High precipitation resulted in full reservoirs throughout the area. However, new species were found in a few trout reservoirs, likely with bad consequences for stocked trout. Box Elder (Vogel) Reservoir just north of Winnett has produced some large rainbow trout in recent years. This year, rainbow trout in nets averaged about 1 pound, but yellow perch were netted for

the first time. The abundant yellow perch were all 5 – 6 inches long. These perch were likely the result of an illegal introduction. Typically, poor rainbow populations are found when yellow perch co-exist with them in the same prairie pond. Yellow Water Reservoir winter-killed during 2010-2011. This summer, it filled to the highest level seen since 1994 and was stocked with rainbow trout. These fish average about 0.5 pounds by September. In addition to rainbow trout, FWP caught white suckers and nearly one hundred 4 – 9 inch carp in gill nets. These fish probably washed in from flooded, upstream, private reservoirs during 2010 and 2011. Dry Blood Reservoir, about 15 miles north of Winnett, was reconstructed in 2009 – 2010. The pond is now deeper and filled in 2011. It has been stocked with both largemouth bass and crappie, and should provide good fishing next year.



The East Fork access road to the campground and boat ramp was damaged by the spill.

Bair Reservoir – Anne Tews

Water levels and the rainbow trout population appeared to be similar in 2010 and 2011. Water levels were high, and rainbow trout averaged 12.2 inches in gill nets, just below last year's record 12.4 inches. Rainbow trout at 28 per net and white suckers at 70 per net were near the 10-year average catch rates. Bair should remain a good place for fishing in 2012.

Martinsdale Reservoir – Anne Tews

Water levels were high until late summer, when the reservoir was drained to about 40% capacity for repairs. Rainbow trout were up to nearly 3 pounds and averaged 0.9 pounds, but numbers in gill nets were below average. White sucker catches were at record high levels.

Ackley Lake – Anne Tews

This off-stream storage reservoir east of Hobson provides good rainbow trout fishing at a State Park and is a favorite destination for many. Gill net catches were similar to 2010, with about average numbers of rainbow trout in nets and fish up to 1.5 pounds.

Petrolia Reservoir – Anne Tews

Walleyes were up to 6 pounds and averaged 13 inches, but walleye gill-net catch (7 per net) was about 70% of the 10-year average. Yellow perch catch, at 23.5 per net was nearly double the 2010 record high of 13 per net. Perch up to 11 inches (0.7 pounds) were caught, as well as many around 6 inches. The northern pike gill-net catch rate was well below average, with only one 7 pounder caught in FWP nets. Flatwillow Creek, upstream of Petrolia, had flood flows for several weeks in 2011, and the reservoir spilled for most of the year (even spilling during fall gill netting).



Yellow perch from Petrolia Reservoir in 2011.

Choteau Area Tiber Reservoir – Dave Yerk

The summer of 2011 will be a memorable one for Tiber Reservoir anglers, as this mainstem, Marias River impoundment attained a size and volume never before seen. Imminent flooding on the lower Missouri River prompted the Army Corps of Engineers (ACOE) to use Tiber's flood pool storage to help reduce flooding damage in downstream states. And use it they did!

Man can learn a lot from fishing -- when the fish are biting no problem in the world is big enough to be remembered.
— Orlando A. Battista

Following orders issued by the ACOE, the Bureau of Reclamation reduced discharges from the reservoir in late May. As peaking inflows from the Marias River were captured in the reservoir in early June, Tiber's elevation rose very quickly. The reservoir reached full pool elevation on June 4, and continued steadily rising into the flood pool through June and mid July, peaking at an elevation of 3,011.4 ft on July 19, which is over 18 ft above full pool! This flood-water retention resulted in a reservoir 140 percent larger (in volume) than what it normally is at full pool elevation.

So what did record high reservoir elevations mean for anglers? For one, access to the reservoir became very difficult. Boat ramps and recreational facilities were completely covered by the high water. Most of the campgrounds were flooded and not accessible for the duration of the summer, and nearly all of the outhouses were inundated by water. Recently installed picnic shelters drifted away. Boaters were forced to launch from wherever they could find a solid bank with a drop-off, and campers were challenged to find accommodations along the ever expanding shoreline.

Biologically, the record-high water elevation brought about some interesting changes to Tiber. The high inflows and expansive flooding of shallow, vegetated shoreline areas resulted in an influx of nutrients, triggering a productivity 'spike'. A "bottom-up" response was evident from this increase in productivity; summer zooplankton densities were three to four times higher than those observed



Tiber's high water elevation led to an increase in productivity, which was evident in the excellent body condition of the reservoir's cisco population.

during normal water years. Because all of Tiber's forage species feed on zooplankton, improved growth, condition, and survival of yellow perch, cisco, and various minnow species can be expected from this high water event, which can only be a plus for Tiber's walleye and northern pike fisheries.

With the greatly expanded size of the reservoir during the summer months, it was not expected that anglers would enjoy much fishing success with the challenging conditions. This was not the case, however. Walleye fishing proved to be excellent in June and early July, with anglers reporting very nice catches of good-sized walleye. What was interesting was that most of these fish were caught in relatively shallow water. Possibly all the newly flooded vegetation provided effective hiding cover for the reservoir's forage fishes, and the walleye moved into the shallows in search of forage. This theory is supported by the fact that walleye catch rates dropped off considerably in late July as the reservoir's elevation started to decline and recede away from the flooded vegetation. At that time, it is likely forage once again became available to Tiber's walleye, and thus their catch ability dropped off.



The South Bootlegger access site on Tiber Reservoir was completely flooded during the summer of 2011.

So what other impacts might be expected from the record high reservoir elevation seen on Tiber in 2011? Significant flushing losses of both juvenile and adult fishes can occur during prolonged spills of surface water from a reservoir. These losses have been well documented in other reservoirs in Montana, particularly Canyon Ferry, Hauser, and Holter Reservoirs on the upper Missouri River. To bring Tiber's elevation within operational guidelines, excess water was flushed from the reservoir via the spillway for a 132-day

period, from July 19 through November 28. The effects of this extended surface spill may not be realized for some time, although fall gill net surveys completed on Tiber in September indicated good numbers of walleyes, yellow perch, northern pike and white suckers remained in the reservoir. In fact, the number of walleyes sampled was the highest observed since 1997, which is encouraging news for Tiber's avid walleye anglers.

Bynum Reservoir - Dave Yerk

Anglers continued to enjoy excellent fishing on Bynum Reservoir during 2011. This off-stream reservoir located northwest of Choteau in the Teton River drainage, has quickly become the "go to" fishery on the Rocky Mountain Front. It is emerging as an excellent multi-species fishery, including rainbow trout, kokanee salmon, and yellow perch.

After being drawn down to dead storage for several years, in 2008 Bynum received enough water from the Teton River for FWP to resume stocking. Rainbow trout were initially stocked, and these fish grew exceptionally well; a trophy fishery quickly developed. During the past two years, anglers commonly reported catching rainbow trout over 8 pounds. FWP stocked kokanee salmon beginning in 2009, and anglers started to key in on these fish during winter 2011. Within the past year, yellow perch have also entered the fishery. Very few yellow perch persisted in Bynum while it was nearly drained of water, but enough remained to 'kick start' this population once the reservoir filled. This population is now expanding exponentially, and within the next couple of years, anglers can expect excellent perch fishing on Bynum. Currently there are many 5 to 6 inch perch in the reservoir; in a couple years, they will be of a size preferred by anglers.

So are all anglers happy with the current fishery in Bynum? Not necessarily. Many avid walleye anglers recall the late 1990s when Bynum sustained a healthy walleye fishery, and they question whether walleyes still persist in the reservoir today. Based on FWP's extensive sampling over the past three years, there is no evidence that any walleyes survived the draining of the reservoir. And, of course, many anglers question when FWP will resume stocking walleyes in Bynum.



Kokanee salmon are now providing excellent fishing in Bynum Reservoir, located northwest of Choteau.

FWP does not have any plans to stock walleyes into Bynum Reservoir in the near future. The current management of the reservoir appears to be an excellent fit for the existing conditions, and the fishery is proving to be very popular with anglers. Walleye fisheries take some time to develop, as walleyes are relatively slow growing and can take up to five years to attain a catchable size. Of even greater consideration is that Bynum is an irrigation reservoir with junior water rights on the Teton River. Thus, there is no guarantee it will receive water on any given year. Because water will be released each year to meet irrigation needs, the reservoir is never more than a few years from being drained down to dead storage again.

Tunnel Lake - Dave Yerk

During the fall of 2011, FWP personnel salvaged and transplanted over 1,200 young-of-the-year Arctic grayling and 258 adult Arctic grayling from the Sun River Slope Canal to Tunnel Lake. These fish originated from a self-sustaining grayling population that has persisted in the upper reaches of the canal for nearly 70 years, after drifting into the canal system from Pishkun Reservoir. During normal operation of the canal, both adult and juvenile fish move down the canal system only to

get stranded in drop structures once the canal is shut off in the fall. Rarely do the grayling overwinter in the drop structures, so FWP makes an effort to seine these fish out of these residual pools to promote the sport fishery in Tunnel Lake. Because of the proximity of the canal to the lake, it is a very economical means to provide a unique angling opportunity at Tunnel Lake.

Additional recent grayling transplants into Tunnel Lake occurred in 2008 and 2009. The transplanted young-of-year grayling averaged approximately five inches in length, and the adults ranged up to 16 inches in length.

Thanks to the sizeable Arctic grayling transplant completed in fall 2011, anglers will have an excellent opportunity to fish for this unique native fish in Tunnel Lake. This natural pothole lake on the Rocky Mountain Front (just north of the Sun Canyon) has been providing excellent grayling and westslope cutthroat trout fishing since 2008, when FWP treated it with a fish-killing pesticide to remove an expanding sucker population. Since that time, annual stockings of cutthroat trout, and occasional transplants of grayling, have produced an excellent fishery, especially for young anglers.



A FWP fisheries crew seines stranded Arctic grayling out of a drop structure on the Sun River Slope Canal.

There is certainly something in angling that tends to produce a serenity of the mind. —Washington Irving

REGION 5 SOUTH CENTRAL MONTANA

2011 Field Season Review - Ken Frazer

The Region 5 fisheries crews were lucky to get any time to actually work on fish this season. A late spring melt followed by extreme high water conditions and an associated oil spill on the Yellowstone River managed to consume most of the season for the entire crew.

Above average spring snowpack in the mountains and a very late melt delayed the normal July 1 start of the mountain lake surveys in the Beartooth Mountains, and also delayed the start of a multi-year Yellowstone cutthroat trout restoration project in the upper Boulder River drainage. When runoff finally started, the water really came. Most of the streams in the region experienced high to record high flows, many of which were exacerbated by extreme rain events. Flooding, accompanied by extensive property damage, immediately put biologists to work following up on emergency permits to start repairing flood damage along numerous streams. On July 1-2, near the peak of these high flows, an exposed oil pipeline across the Yellowstone River ruptured dumping an estimated 63,000 gallons of crude oil into the flooding Yellowstone. From the spill date into early September, the entire region was consumed by the oil-spill and associated cleanup. The fisheries crews spent countless hours helping Shoreline Cleanup Assessment Technique (SCAT) teams assess oil spill damage and recommending clean-up and remediation efforts, attending numerous meetings and briefings, and coordinating efforts with other groups and agencies to evaluate the impacts of the oil spill on fish and wildlife. At the same time, the biologists were trying to keep up with the ever increasing numbers of stream protection permits that were coming in as the flood water dropped and landowners started developing plans to repair damages, and as agencies started following up on emergency work completed earlier in the spring. Because of the extensive flooding that occurred, a majority of the projects covered by these permit applications were very large and complex, requiring a great deal of planning and coordination to get them approved. Much of this effort centered around helping landowners, and

state and local agencies, repair damages without compromising the benefits to stream function and fisheries habitat wrought by the high flows. As the oil-spill work slowed, the permitting work increased. Fisheries crews had a difficult time even fitting in their normal fall sampling before winter set in.



Yellowstone River oil cleanup.

Sage Creek, Pryor Mountains - Mike Ruggles

Sage Creek, in the Pryor Mountains, was historically a Yellowstone cutthroat trout stream. Cutthroat had been extirpated over time by over-exploitation and by competition with stocked rainbow and brook trout. In 2010, the removal of brook and rainbow trout was initiated. This was a very large project involving many private landowners, the Crow Tribe, United States Forest Service, Fish and Wildlife Service, Bureau of Land Management, Bureau of Indian Affairs, and Montana Fish Wildlife & Parks. This project would not have been possible without the incredible understanding and patience of the landowners along whose land most of this project took place, as well as the assistance from other agencies, which provided staff and materials.

Sage Creek was surveyed the first week of July in 2011 and, unfortunately, 12 adult brook trout were collected in the South Fork. One fish (suspected to be a brook trout) was also noted in the North Fork, and a few suspected brook trout were observed in Elk Creek, a small tributary of Sage Creek. The stream was treated again in late September in an effort to remove any remaining

brook trout. Many of the cutthroat trout stocked in 2010 were removed as a result of the 2011 treatment. The stocked cutthroat had grown well, with some fish reaching 12 to 13 inches in less than a year. The area was restocked with over 3,000 fingerling Yellowstone cutthroat in October 2011. Habitat for cutthroat may have been improved as a result of very high runoff in Sage Creek in the spring of 2011, which removed large deposits of silt exposing more rock and gravel areas for future spawning.

Another survey will be conducted in 2012 to determine if a third treatment is necessary. Many removal projects take several treatments; however, it is expected that brook trout will not be found when Sage Creek is resampled in 2012. If brook trout are found, a third treatment would be conducted next summer. Additional cutthroat will be stocked in Sage Creek next summer to hasten the development of a strong cutthroat population throughout the drainage. Future fish surveys will be conducted to determine when natural recruitment occurs from the stocked cutthroat, and to monitor the general condition of the fishery over time. This cutthroat fishery will be managed as a recreational fishery where anglers can harvest cutthroat as part of their standard trout limit.



Yellowstone cutthroat in the Pryor Mountains.

Yellowstone Sauger - Mike Ruggles

In late 2010, sauger in the Yellowstone River from Billings to the Bighorn River were determined to be genetically unique from other sauger in Montana and Wyoming. Prior to these genetic surveys,

this population of sauger had been considered a continuation of the same population found in the lower Yellowstone and Missouri rivers. Lower sauger abundance in this section of the Yellowstone had been attributed to being at the upstream end of their range in the river and above several diversion dams. In 2007, a study was initiated to look at sauger and several other native species in the Billings reach of the Yellowstone. Several sauger were radio-tagged during the study. Telemetry data from the study indicated most sauger in this area didn't travel out of the area or travel very far. It also determined that nearly all the sauger in the reach were adult fish. Other fisheries surveys also noted the lack of juvenile sauger in this reach.

A recent tag return of one of the transmitters implanted in 2007 provided more information on this relatively unknown population of fish. An angler from Laurel caught and reported this fish. (As biologists we greatly appreciate tag returns from anglers.) This particular sauger was caught November 27, 2011 in the Huntley to Bighorn reach of the Yellowstone River and was reported to be 21 inches and weigh 3.2 pounds. The fish was caught at the same location as where it was originally tagged on March 20, 2007. The sauger at tagging was 20.5 inches and weighed 2.86 lbs. This sauger had only added about 0.5 inches of growth and 0.34 pounds during the four years between tagging and recapture. The small change in size helps us understand growth rates and longevity of sauger. Sauger apparently grow very slowly in this area once they reach 18 inches.

This fish was tracked from March 2007 through November 2008. The radio batteries likely expired in the following December or January. This fish had movements similar to other sauger in the study, exhibiting a small home range with typically a short dispersal, if any, over the year. In this study, some radio-tagged fish moved upstream and some downstream, but most returned within a 0.25 miles of their tagging location annually. The most this particular fish moved while being monitored was about 7.5 river miles. It is assumed that this fish spawned several times, indicating spawning habitat is available in this area. Additional work is needed to help determine how successful sauger spawning is in this section of the Yellowstone.

FISHING NEWSLETTER 2012

Another sauger tag return may provide some additional insight on this population. A 10.3 inch, 0.4 pound sauger was tagged near Miles City in the fall of 2003 and was recaptured during our field work near Voyagers Rest FAS in April of 2010. It was



Earl Radonski with a tagged Yellowstone sauger, with Winnett High School volunteers Travis Fortner and Tristany Browning.

17.5 inches long and weighed 1.85 pounds. This fish would have been a juvenile when first tagged, and was an adult when we captured it. This fish showed us that, at 8 or 9 years old, it still wasn't a large fish, indicating that growth is fairly slow. Using this fish growth and approximate age information, along with the other sauger growth information, it appears this sauger could take another 6 years to reach the size of the radio-tagged fish from the previous tag return. These data suggest the age of the radio-tagged fish could have been 15 years old or older. The Miles City sauger was genetically tested, and was the same genetic makeup as the sauger above the Bighorn confluence, but different than other spawning sauger in the Miles City reach of the Yellowstone. It would be interesting to have had a radio in this fish to see if it moved back downstream to the Miles City area, or to see if, once it returned to the Billings reach, it exhibited the same movement patterns as other sauger radio-tagged during the 2007 study.

So in the end, we are left with questions about how much influence the low-head dams and ditches have on reducing the potential for a larger sauger population above the Bighorn River. It's believed that the population has declined substantially over time.

If these fish are genetically unique, but juveniles drift downstream, do they really stay in the upper river the rest of their adult lives with little movement if and when they get back up? If they don't make it back up, why hasn't this population blended with the lower river fish? We anticipate beginning a future study to determine spawning locations, get additional movement and genetic data, and if possible determine some dynamics of the larval drift and subsequent loss or return of juvenile fish, as well as better understand survival rates and longevity of this unique population of sauger in Montana.

On a side note, Montana Fish, Wildlife & Parks and Wyoming Game and Fish (WGF) successfully partnered to spawn genetically unique Bighorn sauger in Wyoming to be stocked in Bighorn Reservoir in Montana. Nearly 50,000 sauger fingerlings were stocked at Ok-A-Beh recreation area as a result of this effort. Stocks of 200,000 fingerlings are anticipated annually for the next 3 years.



Brian King (WGF) with a sauger spawned to produce fish for the Bighorn Reservoir in Montana.

Lower Deer Creek Cutthroat Trout Restoration - Jeremiah Wood

In 2011, FWP staff, partners from other agencies and volunteers completed a project to restore the Yellowstone cutthroat trout population in Lower Deer Creek. A tributary to the Yellowstone River near Greycliff, Lower Deer Creek historically contained an abundant population of Yellowstone cutthroat trout. In recent years, competition from

brown trout and hybridization with rainbow trout have reduced and threatened this population. To eliminate the threat of these nonnative fish wiping out the cutthroat trout population, a plan was developed to remove brown and rainbow trout from the upper half of the creek.

A concrete barrier to upstream fish passage was constructed on Lower Deer Creek in 2010, which prevents fish from moving into the reach where cutthroats are being restored. In 2011, approximately 12 miles of Lower Deer Creek and tributaries were treated with the chemical rotenone, to remove all fish. Hundreds of cutthroat trout were captured and removed from the area prior to treatment, and were restocked after the chemical treatment was completed.

Today, the fish population above the barrier in Lower Deer Creek consists of only native Yellowstone cutthroat trout. While currently small, this population is expected to grow rapidly in the absence of brown and rainbow trout. In addition to their conservation value, cutthroat trout in Lower Deer Creek will be managed as sport fish, meaning that they may be harvested as part of the angler's daily trout limit.

REGION 6 NORTHEAST MONTANA

Missouri River Downstream of Fort Peck Dam - Tyler Haddix

2011 was an interesting year on the Missouri River downstream of Fort Peck Dam in the midst of the highest flows recorded since the dam was constructed in the 1930's. At its peak on June 21st, the river flowed at just over 97,000 cfs. The Fort Peck spillway was used for the first time since 1997 with a record flow of over 55,000 cfs spilling down it - more water than Niagara Falls typically has! This spill coupled with the Milk River flowing over 20,000 cfs caused considerable damage to properties within the floodplains of both rivers. Although the flooding took a toll on the landowners along the river, the floods may prove to be beneficial to the numerous fishes that reside in the system. Both native game and non-game fishes likely benefitted from the river connecting to its floodplain, something that doesn't happen very often in

regulated rivers like the Missouri and Milk.

Due to the high water, sampling fish proved difficult. At times, crews were unable to launch boats onto the river due to both the lack of access and safety concerns. However, when sampling was conducted many interesting things were found. Floodplain habitats were being used by a variety of fish, including pallid sturgeon. Fishes that were captured in the floodplain had full bellies, a sign of abundant food resources. Additionally, many native fishes migrated upstream and were using areas near Fort Peck Dam, likely due to the higher flow and increased suspended sediment loads that were occurring in the river. The use of habitat near the dam is something many native Missouri River fishes don't typically do, due to the normally cold, clear water coming out of Fort Peck Dam.

Young-of-the-year (YOY) abundance of many fishes was higher in 2012, when compared to more normal water years. We observed large numbers of YOY walleye, channel catfish, bigmouth buffalo and cisco in the Missouri River during 2012. At this point it is difficult to determine if these fishes were produced in the Missouri or Milk Rivers, or if they were produced in Fort Peck Reservoir and came over the spillway.

The fish that came down the spillway weren't just the small ones. Electrofishing in the Missouri and the lower Milk rivers showed an increase in large walleyes from the time the spillway began running through the end of sampling. A few anglers began fishing in the spillway and tried to keep their success a secret, but their secret didn't last long. Once word got out, anglers packed into the spillway channel below Fort Peck Reservoir both in boats and from shore and were catching numerous trophy walleyes, channel catfish, smallmouth bass and northern pike. We believe that most of these fish came from Fort Peck Reservoir because trend netting in the Dredge Cuts and the river don't typically pick up fish equal to the sizes that were being caught in the spillway. Great fishing lasted until the spillway stopped running in October and actually continued in the plunge pool that was produced by the raging water well into winter.

"You can observe a lot just by watching." —Yogi Berra

Spillway anglers were not only fortunate to have great angling, but they were also privileged to see a very rare event through much of the summer. Large numbers of adult paddlefish migrated up the Missouri River and congregated at the base of the spillway, possibly feeding on the abundant zooplankton that were coming from the reservoir. With the clear water that was coming down the spillway, these large fish were easily seen by both boat and shore anglers. We're not sure how many paddlefish were in the area, but when the spillway was shut off, 18 were trapped in a channel between the river and the spillway. FWP personnel conducted a rescue effort with a large seine and were able to capture all of these fish and return them to the river.



Paddlefish rescue.

The summer of 2012 will also go down as a very important year in pallid sturgeon recovery. For the past 10 years the Fort Peck Flow Modification crew has been monitoring adult pallid sturgeon migrations, reproduction and recruitment, all the while waiting for a spill to occur at Fort Peck to see if the increased flows and warmer water temperatures would elicit a response from this endangered species. Although it was in the plans to spill a much smaller amount of water on a

controlled basis to test the hypothesis that increased flows and temperatures would induce adult pallid sturgeon to migrate up the Missouri River and spawn, the long period of drought throughout the late 1990's and early 2000's prevented spills due to low reservoir elevations. Therefore, only baseline data of the "status quo" was compiled. All those years of baseline data paid off because the data showed that with normal operations of Fort Peck Dam, only 0-5% of the adult pallid sturgeon population would use the Missouri River during their spawning period, whereas the remainder of the population would run up the more naturalized Yellowstone River. In 2012, with higher discharge in the Missouri, about half the population actually went into the Missouri River and made migrations of over 100 miles. In fact, about 40% of the adult population stayed in the upper reaches of the Missouri River throughout the spawning period. In addition, five radio-tagged, adult pallid sturgeon migrated up the Milk River, which had not occurred until 2010.

Larval fish sampling in the Missouri River near Wolf Point found a genetically confirmed wild pallid sturgeon larva, the first such find in the Missouri River Basin. This little larva was 1.25 inches in length, which means it was probably a one-day, post-hatch fish. Just eight days prior to collecting this larva, the telemetry crew found a congregation of at least five males just downstream of the Fort Peck Spillway. Since at least one larva was produced (and likely a lot more), there was certainly at least one female there as well, most likely one without a radio tag. This information is critically important for the future of pallid sturgeon recovery because it showed that with a spring pulse pallid sturgeon were cued to the Missouri, and that spawning habitat still occurs in the highly degraded system. One of the real positives was that these adults migrated up the Missouri River at flows between 20,000 to 30,000 cfs, which are substantially less than the damaging flows observed at the peak of the flood season.

FWP has been stocking hatchery-reared pallid sturgeon in the Missouri and Yellowstone rivers since 1998. These fish haven't reached sexual maturity yet, but when they do, it is important that we understand how we can manage these rivers to allow them a place to spawn and put the odds

in their favor for successful recruitment. Because larval pallid sturgeon need a great length of river to drift before they begin freely swimming on their own, getting these fish upstream as far as possible to spawn is critically important to their future.

All in all, it was an amazingly unique year on the Missouri River; only time will tell if the production we observed for many of the species of fish will equate to a strong year class. Monitoring the fish populations over the next few years should give us the answer.

Northeast Montana Ponds - Tyler Haddix

The winter of 2010-11 took a toll on a lot of the prairie ponds in the northeast corner of Montana. Record snowfall created fish kills in many of the shallower ponds that FWP actively manages. Deep snow prevents sunlight from penetrating the ponds, which stops aquatic macrophytes from producing oxygen during the daylight hours. Additionally, the lack of light kills many pond plants that begin to deteriorate, which in turn creates carbon dioxide (from the microbial activity). The low-oxygen water that ensues can cause fish kills. However, with the deep snow came a lot of full ponds in late spring and early summer, a plus for pond management. Field crews surveyed numerous ponds in the early spring to see if any fish remained and in those that didn't, had fish stocked.

Coming out of the record 2011 runoff, most ponds had more water than had been seen in the previous ten years. So far, the winter of 2012 has been mild which should result in better winter survival than in previous years. For a more detailed description of the prairie pond program, Region 6 has created a Prairie Ponds Guide that describes recent sampling results, stocking histories, and maps of where these ponds are located. The Prairie Ponds Guide can be found at the Region 6 Regional Headquarters in Glasgow and at the Havre Area Resource Office.

Fort Peck Reservoir - Heath Headley

What a tremendous year for water in Fort Peck Reservoir. It's hard to believe that four years ago (2007) Ft Peck Reservoir was at an all-time low elevation. Since 2007, Fort Peck has risen 57 feet and gained approximately 110,000 surface acres! Reservoir elevations rose nearly 18 feet

in 2011 from January into June thanks to above-average snow pack in the mountains and plains, along with heavy amounts of spring precipitation. Since then, water levels have decreased 16 feet and are forecasted to stabilize during the winter months. Inundated shoreline vegetation during the spring provided a tremendous amount of new spawning and rearing habitat to a variety of fish species. Additionally, this newly flooded shoreline adds valuable nutrients that increase overall lake productivity and benefit the entire Fort Peck Reservoir fish community.

Lingering ice cover, cooler water temperatures, and record flows in the Big Dry Creek arm of Fort Peck made it a challenging year for the 2011 walleye spawning operation. As a result, a total of 40 million eggs were collected, which was far short of our 90 million egg-take goal. However, this effort still provided enough eggs that would eventually turn into fry to fill all the rearing ponds of the Fort Peck and Miles City Fish Hatcheries. Fingerling production was maximized, and ultimately 1.7 million fry and 2.5 million fingerlings were stocked throughout Fort Peck Reservoir. This operation requires a strong volunteer program in order to be successful. If anyone is interested in assisting with the walleye egg-take in April, please call (406) 526-3471 to join the other volunteers that participate annually. It's a great way to learn more about the walleye fishery, see large walleyes, and be part of the statewide egg-take that benefits other Montana walleye fisheries.

Annual gill-netting surveys indicated walleye numbers decreased slightly to 2.8 per net compared to 3.6 per net in 2010. Walleyes in the 10 to 15 inch range were most abundant due to a large group of three-year-old fish, but anglers can be encouraged to know that a good number of walleyes larger than 25 inches continue to be measured during these sampling efforts. Walleyes were found to be more abundant in the Hell Creek to Pines area of the reservoir during the July-August sampling. If the walleyes aren't cooperating, then anglers should try their luck for northern pike or smallmouth bass. Northern pike relative abundance increased from 1.9 per net in 2010 to 2.9 in 2011 due to the tremendous amount of spawning and rearing habitat created by the flooded shoreline vegetation. Most pike

FISHING NEWSLETTER 2012

collected during this time were between 21 and 28 inches. Smallmouth bass populations continue to expand throughout the reservoir, as indicated by our sampling surveys. Anglers should expect decent catches of small to medium-sized fish, but can also expect to have a shot at others up to 18 inches.

Both shoreline forage fish (yellow perch, crappie, spottail shiners, and emerald shiners) and coldwater forage fish (cisco) numbers were high in 2011. Young-of-year yellow perch had one of their best year classes since the mid 1980's, as they experienced ideal spawning and rearing conditions during early spring. Fall netting results also showed an increase in young-of-year cisco from 70 to 143 per net. This increase is attributed to earlier ice cover on the reservoir and stable water levels during the winter months. Early ice cover decreases wave action that causes sediment to cover eggs, resulting in mortality. Severe decreases in water levels during the winter months can dewater eggs, resulting in a large loss of a year class. Current conditions are encouraging, though, because these forage fish species are essential for optimal growth and survival of walleyes, northern pike, smallmouth bass, chinook salmon, and lake trout.



Fort Peck Reservoir Chinook Salmon.

year, 294,097 chinook fingerlings were released into Fort Peck, with 255,492 spring-stocked at five inches, and the remaining 38,605 were fall-stocked at 8 inches.

Fresno Reservoir - Cody Nagel

Fresno Reservoir remained a top destination for walleye anglers in 2011. Standard fall gill netting revealed walleye relative abundance was very high with 21.2 walleye per net. The high walleye abundance over the last five years is largely due to relatively stable reservoir levels and the annual plants of 100,000 walleye, started in 2003. Fresno contains multiple age classes of walleye, with high densities of 15-20 inch fish. Fishing opportunities for walleye will once again be excellent in 2012.



Fort Peck Reservoir Walleye.

In 2011, approximately 254,579 chinook salmon eggs were collected, which was down from the record 610,230 eggs collected in 2010. Fortunately, North and South Dakota were able to provide additional eggs that will allow us to meet stocking goals for 2012. Anglers should see decent numbers of three to four-year-old salmon in 2012. This

Since 2003 adult yellow perch abundance has slightly decreased and there has been concern pertaining to the status of the forage base in Fresno Reservoir. With above average water conditions experienced across the Hi-Line over the last four years, Fresno Reservoir water fluctuations have remained relatively stable. High water events during April and May have flooded terrestrial vegetation,

creating optimal spawning conditions for yellow perch. Furthermore, water levels during the summer and winter months have remained 12-16 feet higher than average keeping structure such as rocks and boulders flooded which creates good rearing habitat for young-of-year yellow perch, crappie, and spottail shiners.

Fall gill net surveys revealed yellow perch relative abundance was at its highest level in six years (6.1 yellow perch/net), and black crappie abundance was at its highest level in 25 years (3.6 crappie/net). Over the last four years yellow perch and crappie have had very good reproductive success and this has translated into very "FAT" walleyes and northern pike. The fishery in Fresno is highly dependant on water levels and these water levels greatly impact the reproduction and survival of forage and sport fish throughout the reservoir.



Fresno Reservoir boat ramp.

Anglers shouldn't overlook the tail-waters below Fresno Dam on the Milk River as fishing opportunities for walleye, northern pike, lake whitefish, and rainbow trout can be excellent at times.

Nelson Reservoir - Cody Nagel

Nelson Reservoir remained a favorite among walleye anglers in 2011. Summer seining efforts revealed spawning success for most species was similar to previous years, with yellow perch, black crappie, and smallmouth bass all having very successful spawns. Annual fall gillnetting yielded the highest yellow perch per net (37.1 yellow perch/net) since FWP standardized their locations in



Nelson Reservoir Yellow Perch catch.

1991. The yellow perch population is mainly comprised of 6-10 inch fish. The northern pike population remains good and there is a good mix of year-classes with northern pike up to 42 inches. The majority of northern pike sampled ranged from 21-28 inches. Walleye numbers remain good and fall netting surveys were normal when compared to long term averages at 13 walleye/net. The walleye population is comprised of mostly 12-19 inch fish.

Beaver Creek and Bear Paw Reservoirs - Cody Nagel

These two fisheries once again provided excellent fishing opportunities for anglers simply looking to catch fish, and lots of them! Anglers targeting rainbow trout experienced high catch rates of 8-12 inch rainbows in both reservoirs and on the 10+ miles of stream as well.

Rainbow trout were not the only fish biting this summer. Anglers fishing along the rock rip-rap dams of both reservoirs experienced excellent smallmouth bass fishing. Most of these fish ranged from 12-15 inches. The walleye and northern pike populations remain good in Beaver Creek Reservoir. The majority of walleye range from 14-23 inches and northern pike range from 23-35 inches. Yellow perch abundance in Beaver Creek Reservoir remains very high and the ice fishing opportunities should be as good for yellow perch ranging from 8-9 inches.

The fishing was good; it was the catching that was bad. —A.K. Best

Area Ponds - Cody Nagel

Fish, Wildlife, and Parks manages roughly 150 small ponds and reservoirs located on both public and private property throughout Hill, Blaine, and Phillips Counties. The fisheries are very diverse, with some ponds being managed as rainbow or brook trout fisheries and others as warm water fisheries that could contain bluegill, yellow perch, largemouth bass, northern pike, walleye, tiger muskie, black crappie, or channel catfish.

Any anglers wishing to experience the excellent fishing some of these ponds have to offer are encouraged to stop by the Havre Area Resource office and pick up the latest version of the Region 6 pond guide to make your trip worthwhile. The fisheries on some of these ponds are greatly affected by water levels and winter severity.



Happy young fisherman.

Missouri River Paddlefish above Fort Peck - Cody Nagel

A valuable recreational snag fishery occurs each year for paddlefish above Fort Peck Reservoir in areas down river of the Fred Robinson Bridge. In recent years, harvest of Fort Peck paddlefish has varied with annual river discharges, but has typically ranged between 300 and 600 fish. Historically, fishermen have caught numerous paddlefish over 100 lbs, however these fish are aging and being removed from the population.

The record flooding experienced up and down the Missouri River and its tributaries created very good spawning conditions for paddlefish. This resulted in the highest number of young-of-year paddlefish



Andrew Amidon and Paddlefish. 2007.

counted during late summer visual counts, since this sampling was established in 1997. FWP will continue to tag paddlefish and encourage anglers to return tags with information on location and size of fish harvested to the Havre Area Resource Office. This information allows biologists to determine survival, harvest, and growth rates of paddlefish in the Missouri River. The paddlefish population remains good in the Missouri River above Fort Peck and anglers should expect another great spring in 2012.

**REGION 7
SOUTHEAST MONTANA**

Yellowstone River Paddlefish - Jason Rhoten

The 2011 paddlefish season began May 15 with river flows around 28,000 cfs. The river was descending after a large regional rain event that had the river pulsing up to 60,000 cfs before angling began. This pulse resulted in fish being harvested in good numbers from the beginning of the season, and many fish being harvested from downstream as fish moved that direction with the retreating flows. Anglers only had four harvest days before another rain event caused the river to swell to record stage, reaching 112,000 cfs. The river flooded the Intake campground and made fishing hazardous. Safety concerns forced closure of all fishing access sites, and Intake remained closed for 11 days. On June 3, Intake was opened again, and harvest continued and peaked on June 4. The harvest season closed June 12. Catch-and-release fishing continued until June 20, providing

additional angling opportunity without increasing harvest and allowing FWP personnel the opportunity to jaw-tag 682 paddlefish. Monitoring the number of tagged paddlefish that are harvested during the season is critical for estimating exploitation of the population and ensuring that the fishery is managed sustainably.

The 1995 year class continues to account for the majority of harvest. Juvenile paddlefish trend surveys on Lake Sakakawea conducted in the fall of 2011 showed high numbers of fish produced in 2011. While numbers of young-of-the-year fish were stronger than they have been in a long time, individual fish were smaller and skinnier than usual. If winter survival of these fish is strong, they may be just the year class we have been looking for to be the future of the paddlefish fishery. Females from the 1995 year class are beginning to appear and will provide good fishing for years to come, but further restriction of harvest will be necessary if spawning efforts do not provide young fish that will ensure the continuation of the population after the 1995 stock has been exhausted.



Paddlefish caught at Intake FAS.

Other Yellowstone River Fishing Opportunities - Jason Rhoten

The lower Yellowstone River continues to provide an exceptional angling opportunity for a variety of warm-water game and non-game species. Native Montana game fish, such as channel catfish, shovelnose sturgeon, and sauger can be found throughout the river. Non-native game fish, such as smallmouth bass, and walleye provide additional

angling diversity. Some non-game species like gold-eye can also be caught by hook and line. Channel catfish weighing 5 to 10 pounds are common, and 20 pound fish are a possibility. Smaller (10-12 inch) channel catfish are extremely abundant and, while they may be a bother to some anglers targeting big fish, they provide great opportunity for kids and those who simply like to catch a lot of fish.



Sauger fishing on the Yellowstone River.

Channel catfish are abundant throughout the lower Yellowstone River, and fall electrofishing surveys indicated they are particularly abundant in the Hysham and Forsyth trend areas downstream of the mouth of the Bighorn River. Smallmouth bass and walleye numbers were also best through these reaches in the clearer water upstream of the mouth of the Powder River. Smallmouth bass can be caught spring through fall and, while fishing is best in the morning and evening, they provide angling opportunity throughout the day. Walleye fishing heats up in the fall as water temperatures begin to drop and, while sauger are more abundant, there are some large walleye in the river. Fall surveys sampled sauger in good numbers and in a variety of size classes. Sauger generally become more abundant further downstream below the mouth of the Powder River, but the individuals are larger further upstream. Fall trend surveys continue to demonstrate reproduction is occurring, as we have been sampling good numbers of juvenile fish in 2010 and 2011. These year classes are a good sign of quality angling for years to come. The Yellowstone River provides a unique and unrivaled source of sauger fishing for North America. When fishing the Yellowstone, consider

ways of protecting female sauger in the population either by including males (usually smaller in size) in your daily limit or by practicing catch-and-release for this Montana native.



Bank fishing for channel catfish on the Yellowstone River.

Shovelnose sturgeon, freshwater drum, and burbot routinely show up in fall surveys and add to the diversity of angling opportunity on the Lower Yellowstone. Goldeye will bite on live bait, soft plastics, and lures and can be an entertaining diversion when using ultra-light tackle or fly-fishing gear.

Tongue River Reservoir - Caleb Bollman

Crappie fishing was difficult for most anglers in 2011 on Tongue River Reservoir. The abundance of spring rain and snow melt made it necessary for dam operators to match discharge out of the reservoir with flow coming in for much of the summer. This flow-through resulted in water within the reservoir that was cooler and more turbid than usual, so fishing for sight-feeding crappie was more difficult than in past years. Anglers had to



Crappie on Tongue River Reservoir.

competition for food resources has resulted in fish of exceptional condition. While the cooler temperatures disrupted normally predictable spawning behaviors and left crappie anglers dissatisfied, they extended prime walleye fishing conditions into the summer, and had walleye anglers pleased for the second year in a row with the quality of that fishery. Department sampling efforts indicated that both crappie and walleye populations are doing as well or better than in past years. Seining efforts indicated crappie young-of-the-year are abundant; trapping and gill-netting yielded higher than usual catch rates for adults.

For the 2012 fishing season, expect results similar to 2011 if weather patterns yield another cool, wet spring and summer. If we get more characteristic temperatures and rainfall, expect better crappie fishing and similar walleye fishing, but for a shorter period of time (not extending as far into the summer). Smallmouth bass, bullheads, northern pike, and channel catfish make up the rest of the angler harvest in Tongue River Reservoir, and they lag far behind crappie in both numbers caught and angler preference.

Southeastern Montana Ponds - Caleb Bollman

Of the 100+ ponds being managed for fish in Region 7's pond program, most are privately owned. In exchange for fish stocking and management, landowners allow public access. Ponds are stocked with a variety of fish, including bass, catfish, perch, and rainbow trout. About one third of the ponds in the program are sampled each year, and survey results are summarized in the Region 7 Pond Fishing Guide. The Pond Fishing Guide is updated annually and available for free to the public by stopping by the FWP Headquarters in Miles City or by calling 406-234-0900. The pond guide provides maps of the ponds in the program arranged by county. Ownership and fishery information is also provided in the booklet, including private landowner names and survey results. As with all private lands, permission is granted through the landowner and must be obtained each and every time before fishing. It is the responsibility of the angler to look up the landowner's phone number and request permission to fish. Spring rain and snow-melt filled virtually every pond in southeastern Montana, proving to be too much for some ponds, as dam structures failed. Hatchery crews were busy in 2011 replant-

ing bass and rainbow trout all over the region. In spite of the harsh winter of 2010/2011, Region 7 crews documented little evidence of winter kill in managed ponds. Pond fisheries had struggled due to low water levels throughout the last drought cycle, but now with ample water and new fish stocks, fishing opportunity should be abundant across southeastern Montana for years to come.



Ice fishing a prairie pond.

AQUATIC INVASIVE SPECIES PROGRAM

Linnaea Schroeer & Stacy Schmidt

The FWP Aquatic Invasive Species (AIS) Program received a significant boost in support during the 2011 legislative session. FWP was also given the authority to conduct mandatory watercraft inspections. This new authority greatly increased FWP's ability to carry out and enforce an instrumental aspect of the AIS program. The legislature increased funding for the AIS program to \$1,149,000 for 2011-2012, with approximately \$940,000 of that allocated to FWP (the remainder is shared between DNRC and Department of Agriculture who also conduct AIS work across the State).

With the increase in funding FWP was able to more than double the watercraft inspection program. In 2010 FWP personnel conducted 2900 watercraft inspections, and in 2011 that rose to 7295 inspections at 38 different waterbodies or inspection stations. Over 19,000 boaters and anglers were directly spoken with about the threats posed by

We need your help!

Do your part to stop the spread of aquatic invasive species that choke municipal water and irrigation systems, damage our waters and ruin your fishing and fun.

1. INSPECT: After leaving a lake or stream, inspect your boat, engine, trailer, anchor, waders, and other fishing and boating gear for mud, water, and vegetation that could carry aquatic invasive species.

2. CLEAN: Completely remove all mud, water, and vegetation you find. Boaters should use a pressurized power sprayer, found at most do-it-yourself car washes. The hot water helps kill organisms and the pressure removes mud and vegetation. No need to use soap or chemicals.

3. DRY: Aquatic invaders can survive only in water and wet areas. By draining and drying your boat and fishing equipment thoroughly, you will kill most invasive species. The longer you keep your boat, trailer, waders, and other equipment outside in the hot sun between trips, the better.

INSPECT

CLEAN.

DRY.



**STOP AQUATIC
HITCHHIKERS!**



Montana Fish,
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AIS through the efforts of our staff, and thousands more were reached through other public education means such as billboards, brochures, mailings, signs, bumper stickers, advertising, radio spots, and presentations to schools and angling groups.



Watercraft inspection on Canyon Ferry Reservoir.

Overall the watercraft inspection program went smoothly this year. The vast majority of recreationists who were stopped and surveyed were highly supportive of the program and of FWP's efforts to halt the spread of AIS. Knowledge and awareness of the issues surrounding AIS appear to be steadily rising over the years that the program has been in place. Unfortunately, a large segment of the population still does not recognize how great of a threat that AIS pose to Montana and the surrounding region, so these outreach efforts need to be continued.

Routine early detection and monitoring of waterbodies was delayed this year because of record-high water across the state, but staff still managed to conduct monitoring at 116 different sites at 38 different waterbodies. Eurasian watermillfoil was discovered at a new location in Beaver Lake in the northwest part of the state by the Department of Agriculture. FWP closed down the boat ramp there and crews from Agriculture conducted some removal and containment work in the infested area.



Stacy Schmidt conducting AIS Monitoring below Holter Dam.

In order to facilitate additional AIS monitoring and detection across the state, staff from the Fish Health Lab in Great Falls and several regional biologists were trained in 2011 to assist Helena AIS staff and provide regional AIS expertise.



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RIVER RESERVOIR • WAYFARERS
• WEST SHORE • WHITEFISH LAKE





HATCHERIES

Big Spring Trout Hatchery

Route 1 Box 1670
Lewistown, MT 59457
(406) 538-5588

Bluewater Springs Trout Hatchery

PO Box 423
Bridger, MT 59014
(406) 668-7443

Flathead Lake Salmon Hatchery

100 Spring Creek Road
Somers, MT 59932
(406) 857-3744

Fort Peck Hatchery

PO Box 167
Fort Peck, MT 59223
(406) 526-3689

Giant Springs Trout Hatchery

4801 Giant Springs Rd
Great Falls, MT 59405
(406) 452-5734

Jocko River Trout Hatchery

206 Hatchery Lane
Arlee, MT 59821
(406) 726-3344

Miles City Fish Hatchery

PO Box 756
Miles City, MT 59301
(406) 234-4753

Murray Springs Trout Hatchery

5475 Sophie Lake Road
Eureka, MT 59917
(406) 889-3489

Washoe Park Trout Hatchery

600 W Pennsylvania St
Anaconda, MT 59711
(406) 563-2531

Yellowstone River Trout Hatchery

PO Box 508
Big Timber, MT 59011
(406) 932-4434

MONTANA FISH HATCHERIES

The first Montana hatchery began operation in 1908 at what is now Washoe Park Trout Hatchery at Anaconda. Currently, ten hatcheries are operated by FWP. In addition, three federal hatcheries (at Bozeman, Creston and Ennis) are operated by the USFWS.

Stocking Fish

- Hatchery fish are stocked into approximately 836 lakes and reservoirs and approximately 23 rivers or streams throughout Montana to provide sport fishing opportunities and restore native fish species.
- Maintaining naturally producing wild trout populations has been a priority in Montana since 1974 when a research project on the Madison River showed planting of hatchery trout to be detrimental to wild populations in rivers and streams.
- Annual hatchery production of fish is typically 45 million warm-water fish and 8.4 million cold-water fish. Most warm-water species are stocked as fry, thus total warm-water production is less than 11,000 pounds of fish. Total weight of cold-water species typically exceeds 350,000 pounds.
- Annual stocking plans and stocking reports for specific Montana waters can be found on FWP's website at <http://fwp.mt.gov/fishing/hatcheries/default.html>.

MURRAY SPRINGS TROUT HATCHERY

John Lord, Manager

The Murray Springs Fish Hatchery was constructed in 1978 to mitigate for fishery losses in the Kootenai River that were caused by the construction of Libby Dam. Operating the hatchery is a cooperative venture between the US Army Corps of Engineers and the Montana Department of Fish, Wildlife and Parks. The Corps built the hatchery, maintains the facilities, and funds the hatchery programs. Department employees raise the fish, and FWP fishery managers oversee the fish-stocking plan. Most of the fish produced at the Murray Springs hatchery are stocked into north-western Montana waters.

During 2011, the Murray Springs crew released 237,600 trout into public waters. The breakdown by species and strain was 98,400 west-slope cutthroat, 46,350 Gerrard rainbow, 83,650 Eagle Lake rainbow, and 9200 redband rainbow. Although the hatchery staff stocked some trout to meet fisheries-conservation objectives, the primary intention for the majority of our hatchery fish was to enhance diverse recreational opportunities for anglers.

We planted large retired-brood rainbows and catchable-sized trout into urban ponds, which are geared chiefly to provide angling opportunities for kids. Those urban fisheries can be found in the communities of Eureka, Troy, Whitefish, and Kalispell. Efforts are presently underway to establish a kids pond in Libby.



Catch of the day!

Each year, we transport fish to several backcountry lakes. During 2011, we stocked cutthroat fry in 15 remote lakes via helicopter and we backpacked small trout to seven other more-easily accessible lakes.



Lake Geneva.

The bulk of the Murray Springs production fish are released from fish-transport trucks into lower-elevation waters.

Northwestern Montana residents are fortunate in that they can drive to any number of good fishing holes that are located within one-hour drive of their homes. A few lakes are managed as trophy waters where large trout (22 inches or longer) can be caught. Fishermen who are determined to pursue those larger fish can search out the names of the trophy lakes by perusing the information that is printed in the Western [Fishing] District portion of the Montana Fishing Regulations.

FLATHEAD LAKE SALMON HATCHERY

Mark Kornick, Manager

In the year 2011 Flathead Lake Salmon Hatchery (FLSH) stocked 1.65 million two inch kokanee into 25 Montana waters. Those fish were the progeny of adults spawned in the fall of 2010 from Lake Mary Ronan (2.1 million eggs), and Little Bitterroot Lake (1.1 million eggs). FLSH shipped 520,000 kokanee eggs to Big Springs Hatchery for eventual hatch and distribution into state waters. FLSH also spawned, hatched and distributed Arctic grayling and rainbow/cutthroat trout hybrids. 110,000 West-slope cutthroat trout were hatched, reared and stocked by helicopter into backcountry lakes. The sportsmen and women will benefit

greatly by a satellite hatchery construction project completed in 2011. The site near Bigfork, Montana called Rose Creek Hatchery is supplied by an artesian well captured in the early 2000's. It will ultimately provide space for as many as one million two inch salmonid species. The hatchery was built to be very energy efficient and uses a geothermal heating system using heat energy from the source water. High efficiency lighting, high R-value insulation and natural daylighting rounds off the hatchery building, making it a top-notch, modern but bare-bones facility that provides excellent fish-rearing capability. Plumbing, water conditioning and testing was completed by hatchery staff in September 2011 and initial tests show great promise for this facility.



Kokanee eggs one week from hatching.



Arctic grayling spawning.

The fall of 2011 provided a bumper crop of high quality kokanee eggs for 2012 stocking. Three million eggs from Lake Mary Ronan and 500,000 from Little Bitterroot Lake were spawned by the two salmon hatchery employees with the help of regional fisheries staff, Creston National Fish Hatchery staff, Montana hatchery system staffs and also very capable volunteers. The State of Utah was provided 550,000 of those eggs as was Big Springs Hatchery. The State of Montana works with western state and federal agencies whenever feasible to the benefit of Montana sportspersons as those entities share with us their resources when needed.

If people don't occasionally walk away from you shaking their heads, you're doing something wrong." — John Gierach

JOCKO RIVER TROUT HATCHERY

Charlie Bridgham, Manager

2011 was another successful year. Triploids were produced, egg requests for were met (and then some), and the wrath of Mother Nature was contained (somewhat).

First of all, Jeff and Ron did a remarkable job in the absence of a manager prior to the start of 2011. They were able to meet request for eggs, meet stocking goals, and produce another round of triploids while being a man down. Both of them should be commended for their work and dedication to their jobs in order to meet production goals.



The photo above is during the flooding next to the main hatchery building. The photo below is what it normally looks like.



At the end of February, I came on as the new Hatchery Manager. Having come from the Fort Peck Hatchery and dealing mostly with cool water species and a production facility, the job seemed overwhelming dealing with broodstock management, egg production, fish production, and learning a whole new system dealing with water source limitations during certain times of the year, space manipulation, and a whole new planting area that can have limitations during specific times of the year. Without Jeff and Ron's help, things would not have run as smoothly as they did. There were still a few hiccups as would be expected, but nothing major.

One of the first challenges of 2011 was the abundance of moisture that was being stored throughout the winter in the state. Mother Nature treated us just like everybody else in the state. During the spring runoff, the Jocko River swelled and over flowed it's bank, luckily a berm had been built during the spring to hold back the water. As the river level rose in June, areas that hadn't flooded before did and almost flooded the hatchery area around the buildings. Without the berm in place, it would have been a lot worse.

Unfortunately, after the river levels subsided, we had another surge of water. This second surge flooded upstream of the hatchery and crossed the service road into our broodstock water supply. The hatchery was put under a limited quarantine because of the potential for whirling disease contamination. The quarantine has since been lifted and we are back to normal operations.

The 2011 spawn was concluded with an egg take of 6,041,809 eggs with an eye-up of 83.6%. Earlier this summer, the Utah Division of Wildlife Resources contacted us and wanted to establish a broodstock of Arlee strain Rainbows from a coldwater disease free source. We were able to supply them with eggs to help establish their broodstock. This should serve as a testament to the type of quality work that is being done by the Montana Fish, Wildlife & Parks that another state wildlife agency is coming to FWP for help. Once again, I can't praise Ron and Jeff enough for their dedication to their jobs. They once again produced triploids with

a 100% induction rate. We were able to stock out 187,167 2" to 7" fish, 23,038 7" to 12" fish, and over 5,557 12"+ fish to various waters within the state. With the way things are shaping up, 2012 will be more productive than 2011.



As a final note, there have been frequent visitors to the hatchery which dealing with them is often challenging. At first, it was exciting to see them, but after they started to damage things the novelty of them wore off. Here's a picture of one getting ready to destroy something that I had been working on. He did a number on that Crabapple tree, but nothing like the one next to the house. It is still exciting to still be able to see wildlife like this in your own backyard even if they do DESTROY YOUR TREES!!!!

WASHOE PARK TROUT HATCHERY

Angela Smith, Acting Manager

2011 has been a good year at Washoe Park, and it has also been fairly eventful. We had 87 total plants, of which twenty seven were sport fish plants, six were rehab, thirty three were high mountain lakes, and twenty one were kids and urban fishing ponds. We planted 17,958 fry (0"-2"), 136,950 fingerlings (2"-7"), 6,300 catchables (7"-12") and 1,515 retired brood (12"+). These plants totaled 9,839 pounds of WCT and 10,357 road miles driven. The hatchery produced just over 1,180,000 eyed eggs of which roughly 300,000 went to the Creston National Fish Hatchery, 300,000 to the Murray Springs Trout Hatchery, 180,000 to the Flathead Lake/Rose Creek Hatchery, 10,000 to research projects, and 350,000 were kept at Washoe Park.

We provided hatchery tours to hundreds of kids from pre-school through high school ages this spring. We put on our annual Kid's and People with Disabilities fishing event in cooperation with

our local Kiwanis, AWARE Inc, and BSW. We were supplied with lots of raffle prizes by our FWP fishing education coordinator, Dave Hagengruber, which made the event even more exciting. We also had a fishing day with a group of underprivileged youth from Butte. This year was the kickoff for our first Hooked on Fishing Program at Lincoln Elementary in Anaconda. We have monthly activities in two-fourth grade classes there and things are going very well.

2011 was also a broodstock infusion year, and male WCT were brought down from the South Fork of the Flathead to cross with our females and contribute to our future brood. This is a huge effort made possible by coordination with R1 biologists and fish culturists from the Flathead Lake and Sekokini Springs hatcheries. We had 1200 resulting progeny that will be incorporated into our brood and will contribute their genetics for the first time in 2014.

Our high mountain lake planting season went very well and our transport methods were as diverse as ever. Many of our local lakes such as Alpine and Albicaulis and Rainbow were planted by ATV in cooperation with local sportsmen, such as the Gochanour family. Other local lakes such as Upper and Lower Barker, Whetstone, Green Canyon and Little Racetrack were planted by backpack. Two lakes on the Montana/Idaho border near Superior were planted by backpack by hatchery staff and USFS fisheries biologist Jennifer Mickelson. We planted Heart Lake in the Scapegoat Wilderness with the help of Ezra Schwalm and his mule team. The remainder of our plants were done with our new FWP pilot, Neil Cadwell by helicopter and included lakes in the Bitterroots, Flints, Little Belts, Madison and Gallatin Ranges and his skills made the plant days incredibly efficient.



Helicopter for planting remote lakes.

This year brought with it more critter activity than we are used to. A rogue female raccoon made the hatchery complex her home and made quite

a habit of knocking over feed buckets and fishing in our brood ponds, even in the middle of the day. Much to the surprise of employees going in and out of the shelters to clean! She also decided to have her litter very close to the hatchery, where at one point the little guys snuck in an open door and had a party in our office over night. Eventually the whole family was trapped and moved out of town. We also had many more birds using the hatchery as their fishing spot including our normal seagulls, kingfishers and herons as well as new-comers, ospreys and bald eagles. Fishing must have been tough this spring with all the high, turbulent water.

Just as a reminder, the Washoe Park Hatchery is open daily from 8am-5pm and has a great interpretive center, live stream display and trout feeding pond. Educational tours are available upon request.

GIANT SPRINGS TROUT HATCHERY

Bruce Chaney, Manager

In 2011, Giant Springs took on the task of making room for an extra 225,000 fish for Lewistown which was under construction. Keeping a close eye on densities and feed levels throughout the season was a must, but of course we got through it and could handle the challenge again if needed in the future.



Giant Springs hatchery.

Our newest culturist, Matt Wipf, is going to be administering a prophylactic probiotic treatment to try to negate the effects of *Flavobacterium psychrophilum* in our Arlee strain. Probiotics were obtained through a grant from DVAqua a probiotic research company. We are looking forward to helping Matt with this study and have high hopes that we can reduce mortality among the study lot.

After a successful trial run in 2010 of eyeing up brook trout eggs here at Giant Springs, it was



Stocking fish in the spring.

decided that our hatchery would take over the brook trout program from start to finish. In October, we had the opportunity to travel to Crystal Lakes and spawn brook trout.

In 2011 Giant Springs put out roughly 844,000 fish for a total of roughly 77,000 pounds. The strains we produced were: Alree Rainbow, Erwin x Arlee Rainbow, Ennis Eagle Lake (Young of the Year) Rainbow, Holter Lake (Over Winter) Eagle Lake Rainbow, and Crystal Lake Brook Trout.

This year was once again a good year for Giant Springs. No crazy outbreaks of disease, other than our normal loss, from coldwater, and we received a lot of good news about good fishing coming from waters we plant. Georgetown Lake is one reservoir that we have continued to hear good news about. It appears that our brook trout have taken off and are doing well. Let's hope this fishery continues to grow and we can hope sooner than later it will be able to sustain itself without our help.

BIG SPRINGS TROUT HATCHERY

Jim Drissell, Manager

Big Springs Trout Hatchery is FWP's largest trout and salmon production facility and is located seven miles southeast of Lewistown near the source of Big Springs. 1,511,224 fish weighing 114,622 pounds were stocked in 2011. Of these, the majority were stocked in Region 4 (1,286,041 fish), along with some stocking in Region 5 (176,200 fish), Region 6 (47,007 fish), and Region 7 (1,976 fish). Four different strains of rainbow trout, along with brown trout and kokanee salmon, were raised and stocked in 2011.

Arlee/Erwin rainbow trout eggs come from Ennis

FISHING NEWSLETTER 2012

National Fish Hatchery (NFH) in late August. These are some of the earliest fall rainbow eggs available. This gives us extra time to grow these fish over-winter so they will be a larger size come spring. These fish are used for our "catchable" program, and are typically stocked in urban ponds and other areas where fish growth and/or survival are minimal from year to year. 39,504 Arlee/Erwins were stocked, averaging 8 inches.

Arlee rainbow trout eggs come from FWP's Jocko River Trout Hatchery and from Ennis NFH in late November and early December. Some of these fish are used for "put-grow-take" fisheries. That means the fish are stocked at a small size, which allows us to raise more fish. The fish continue to grow in the stocked waters over-winter before reaching a catchable size. 169,687 Arlee were stocked in ponds, lakes, and reservoirs, averaging 4.5 inches. The rest of the Arlee are raised to a larger size for stocking Canyon Ferry and Holter reservoirs. Larger fish are stocked in these two reservoirs to help avoid Walleye predation. These fish are normally stocked in the fall at 8 inches in size, but due to hatchery construction (see below) they were stocked in July at 6.7 inches on average. 100,558 Arlee were stocked in Canyon Ferry and 86,802 Arlee were stocked in Holter.

McConaughy rainbow trout eggs come from Ennis NFH in February. These fish are stocked solely in Deadmans Basin Reservoir. 57,811 were stocked averaging 2.3 inches.

Eagle Lake rainbow trout eggs come from two sources. Some eggs come from Ennis NFH in January or February, and the rest come from wild fish spawned at Holter Lake in April. 140,186 fish averaging 3.0 inches were stocked in "put-grow-take" waters. 157,229 fish averaging 8.0 inches were stocked in Canyon Ferry, and 130,743 fish averaging 7.6 inches were stocked in Holter. In addition, 154,777 fish averaging 4.2 inches were stocked in Holter. These fish would typically be raised over-winter at the hatchery and stocked the following year, but rearing space at the hatchery is limited due to construction, so they were stocked early.

"It is not how abundant nor how considerable our catch be, but rather to the sport, and manner in which our quarry, the noble trout is angled." — J.B. Martin

Kokanee salmon eggs come from wild fish spawned at Lake Mary Ronan or Little Bitterroot Lake. These eggs arrive at the hatchery in October or November. 371,120 fish averaging 3.2 inches were stocked in four reservoirs.



Reconstruction of the lower unit raceways.

Brown trout eggs come from Saratoga NFH in Saratoga Wyoming. These eggs arrive at the hatchery in November. 82,290 fish averaging 5.0 inches were stocked in various waters.

Polychlorinated biphenyls (PCBs) were discovered at the hatchery in 2003. The PCBs were found in old paint previously used throughout the hatchery. Some PCB cleanup has been done through the years, and now the final stages of cleanup have occurred in 2011, and will finish in 2012. All buildings (three houses, two hatchery buildings, and warehouse) had PCB cleanup in 2011. One house was demolished due to high levels of PCBs, and the outside raceways at the lower unit were also demolished. Reconstruction of the lower unit raceways began in the fall of 2011, and should be completed by summer of 2012. Because of the PCB cleanup and lower raceway construction, rearing space for fish was limited in 2011 and will be limited in 2012. Other hatcheries are raising additional fish to help make up the difference during this time.

"Anglers...exaggerate grossly and make gentle and inoffensive creatures sound like wounded buffalo and man-eating tigers." — Roderick Haig-Brown

YELLOWSTONE RIVER TROUT HATCHERY

Jay Pravecek, Manager

2011 was a very interesting, challenging and enjoyable year here at Yellowstone River Trout Hatchery. The Goose Lake cutthroat brood began spawning in February. The spawning season went well and we finished in mid-April. We collected around 592,000 eggs with an average eye-up of 82%.

The large amounts of snow pack that accumulated here (and the rest of MT) last winter certainly created a lot of interest and some challenges for us. The first challenge came in the form of planning for a potential spring flood. The hatchery has flooded in the past both in 1996 and 1997. A snoutel site near Cooke City still had over 110" of snowpack in Mid May! We did manage to stay high and dry; however, if it wasn't for the ideal runoff conditions that we experienced, without a doubt, the hatchery would have been flooded.



The Elite Eight – Wild Big Hole Grayling at the Yellowstone River Hatchery.

All of the snow and subsequent water created another challenge for us with spawning grayling on the Big Hole River. This capture and spawn effort started in late April and after three separate attempts with Jim Magee and crew, we had unfortunately only spawned one female. We incubated the eggs in the isolation room and post-hatch numbers resulted in what we call the "elite eight" Big Hole grayling. These fish are included in the brood recruitment lot for Axolotl Lake.

On June 1st, we assisted in spawning grayling at Red Rocks Wildlife Refuge. This spawning

endeavor was very successful with over 211,000 eggs taken. A majority of the eggs were placed in remote site incubators (RSI's) in Spring Creek and Elk Springs Creek. Another 1800 eggs, representing all family groups, were placed into RSI's in Red Rock Creek. The following day, we traveled to Axolotl Lake to spawn grayling there. Again we had good success with over 147,000 eggs collected from 100 females. The Axolotl eggs were incubated here at the hatchery with a 94% eye-up! Of these, 124,000 were transferred to the biologist as eyed eggs and placed into RSI's in Rock Creek, a tributary of the Big Hole. A portion of the remaining grayling is being raised here at the hatchery.

In July, we switched gears to spawning golden trout at Sylvan Lake. Again the excessive snowpack created yet another challenge for us by delaying ice off at the lake by 7-10 days. The first trip into the lake on July 5th was a little too early and resulted in partially spawning 28 females with low egg survival. A second trip on July 11th was a little too late, but we were able to spawn 12 females with good egg survival. In September, 2 lakes in the Mission Mountains as well as 4 lakes in the Beartooth Mountains were stocked by helicopter. Jim Olson also stocked Sky Top Lake as a pack back plant. The golden trout program was originally expected to be completed in 2011, but it looks as though it will continue again in 2012.

Other projects of interest that we did this year include: 1) Stocking 29 high mountain lakes via helicopter with Yellowstone cutthroat and 6 with golden trout, the new pilot in Region 5 - Neil



Spring 2011. Flood waters approach the Yellowstone River Trout Hatchery.

Cadwell is really good! 2) Assisting regional biologist' and crew with various projects including: Lower Deer Creek rotenone and YCT restoration, Yellowstone River population estimates and spawning YCT in Duck Creek. 3) Assist for the second year, with stocking YCT into Sage Creek as restoration efforts continue there.

BLUEWATER SPRINGS TROUT HATCHERY

Dave Robertson, Manager

Bluewater Fish Hatchery is a production station located nine miles east of Bridger, Montana. Bluewater provides fish for approximately 50 waters scattered throughout the southern portions of the state. The hatchery raises three different strains of rainbow trout including Arlee, Eagle Lake and Harrison Lake. These fish are stocked into reservoirs to maintain sport and urban fisheries. Bluewater also raised Yellowstone Cutthroat Trout in 2011 for sport fishery and for native fish re-introduction. The hatchery also overwinters the Large and Smallmouth Bass broodstocks which come from the Miles City Fish Hatchery. Bass are fed a healthy supply of trout forage while at the facility.



Aerial view of Bluewater Trout Hatchery.

In 2011 Bluewater hatchery stocked 1,373,135 fish weighing 50,737 pounds into waters located in regions 2,3,4,5 and 7. Some of the major waters include: Georgetown Lake, Hebgen Lake, Clark Canyon, Canyon Ferry and Cooney Reservoirs. The hatchery also supplies fish for the Region 7 air planting program in which fish are planted via helicopter. Approximately 350,000 fish weighing 2,300 pounds were produced to supply fish for the air plant and bass forage programs. The hatchery supplied Yellowstone Cut-

throat for a second year for Sage Creek located in the Prior Mountains south of Billings to aid in restoring this native fishery.

In 2011 the hatchery continued planting Ruby reservoir for the second year, which was planted by Ennis National Fish Hatchery in the past.

Please feel free to stop by and visit the fish hatchery. The hatchery is open to the public from 8:00-5:00 seven days a week.



Stocking Goose Bay located on Canyon Ferry.

FORT PECK FISH HATCHERY

Wade Geraets, Acting Manager

The Fort Peck Multi-Species Fish Hatchery (FPFH) is FWP's newest hatchery. Built by the Army Corp of Engineers, the hatchery is a state of the art facility and went into production in January of 2006. Encompassing 100 acres of land, the hatchery is comprised of a 30,000 sq. ft. office/rearing building, 40 ponds totaling 45 surface acres, and eight 80 ft. raceways. The primary function of the FPFH is to provide fish to maintain sport fish and recreational opportunities to anglers in Northeastern Montana. Species raised at the FPFH are Walleye, Northern Pike, Chinook Salmon, and Rainbow Trout.

The primary species raised at FPFH is walleye. Our annual management request is for 100 million eggs. The spawning of walleye is done remotely by the Region Six Fort Peck Lake Biologist, his staff, the FPFH staff, and many volunteers. Numbers of eggs collected is dependent on weather with some years exceeding the request and others falling short. Due to poor spawning conditions, heavy early spring runoff and ice still on the main stem of

the lake, 2011 egg take numbers were well below the annual management request numbers. The egg take totaled 40,793,000 being split between FPFH and the Miles City State Fish Hatchery (MCSFH). FPFH received 23,443,000 green eggs and the MCSFH approximately 17,350,000 green eggs. After incubation, walleyes are either stocked as fry (3-5 days old), 1 -2 inch fingerlings (approx. 30 days old), or as advanced fingerlings (>60 days). FPFH is also responsible for the production of triploid walleye for the state of Montana. Triploid walleye production has been ongoing for three seasons, although still in the experimental stages results have been promising.

Due to the poor spawning conditions in 2011, our egg take for the triploid walleyes was far less than anticipated. For 2011, triploid walleye induction rates were 93.33% for two combined trials with an 8.4% pond survival. For 2012, more emphasis will be placed on triploid walleye production than in the past to help accomplish goals in the Big Horn Reservoir management plan.



Northern Pike spawning, Fort Peck.

Northern Pike production began at the FPFH in the spring of 2009. Production goals vary from year to year based on management goals and objectives. As a supplement to our walleye egg taking activities on Fort Peck Reservoir, we also collect northern pike eggs for production purposes. In 2011, we took 2.1 million green northern pike eggs and were able to produce 1.2 million fry and 42,264 northern pike fingerlings. The majority of these fry and fingerlings were stocked into the federal water of Medicine Lake, in the north east corner of Montana. The FPFH has taken over this stocking

to help prevent the introduction of diseases into state waters from outside the state egg sources.

The FPFH is the only instate source of Chinook Salmon eggs. Production goals are for 150,000 spring release fingerlings and 50,000 fall release fingerlings. Due to poor fall returns of returning adults, surplus eggs from neighboring states (North and South Dakota) that have been tested and certified disease free, have been raised at the FPFH to meet management goals. For 2011, FPFH released 255,000 spring release fingerlings and 38,600 fall release fingerlings into Fort Peck Reservoir. With an increase in water levels in Fort Peck Reservoir, it is hoped that significant returns of salmon will return and management goals can be met without the additional aid from outside sources.

Starting in 2010, FPFH started rearing rainbow trout for stocking waters in northeastern Montana. Current production requests vary from year to year, but on average approximately 110,000 fingerlings per year will be stocked. For 2011, FPFH stocked 97,800 fingerling rainbow trout and 10,400 catchable (7 -9 inch) rainbow trout. In 2012, FPFH will see an increase in production of rainbow trout fingerlings due to the continued reconstruction of The Big Springs Trout Hatchery in Lewistown, MT. FPFH will be taking over all production of trout fingerlings for Region Seven helicopter plants and help with the forage base for smallmouth bass being reared at the Miles City State Fish Hatchery.

In 2011, FPFH stocked a total of 7,123,248 fish weighing a total of 17,719.60 pounds of four different fish species (walleye, northern pike, chinook salmon and rainbow trout) into 60 state waters.

MILES CITY FISH HATCHERY

Mike Rhodes, Manager

Production of warm and cool water fish is the primary goal of the MCSFH. These fish are distributed throughout the entire state.

The production of largemouth bass (LMB) and smallmouth bass (SMB) was very successful this year. Due to excess spring snow and rain run-off, all the regional requests for LMB and SMB were

met with 273,122 LMB and 64,500 SMB being planted across the state.

Channel catfish production continues to be a challenge, due to environmental concerns in the spawning pond. Fry that were collected this year were taken to inside rearing tanks, where they could be treated for parasites. They were distributed to Regions 5 & 6.

Rainbow trout were distributed in Region 7 by use of the FWP helicopter. Fifty one plants were made this year totaling 73,500 fish.

A total 40,000,000 walleye eggs were collected this year from Fort Peck Res. MCFH received 17,192,000 of those eggs. From those eggs 2,900,000 fry, 820,849 fingerlings, and 5000 advanced fingerlings were produced. Due to the shortage of eggs this year, not all commitments were met.

This spring Region 5 biologist with the help and cooperation of the Wyoming Fish and Game collected 1.5 million eggs from the Bighorn River in Wyoming. These eggs were brought to MCFH where they were incubated and hatched. Fry were put in outside rearing ponds where survival was very low. This was due to a very heavy load of predacious insects (backswimmers).

High water conditions in both the Yellowstone and Missouri rivers, severely affected the collection of pallid sturgeon adults. One female was collected in the upper Missouri, and one male was collected

in the lower Yellowstone. In order to get enough genetic diversity, cryo preserved sperm from the Garrison Dam NFH was used to create multiple crosses with this lone female. Due to poor egg quality, production at all 4 hatcheries failed. Of the thousands of eggs that were produced, the Garrison Dam NFH has 63 fish left.

MCFH produced a total of 4,194,783 fish totaling 2047 lbs. This consists of 6 different species that were planted into 110 different waters.

FISH HEALTH PROGRAM

Ken Staigmiller & Marc Terrazas

The fish health program is responsible for helping maintain quality, healthy populations of fish in Montana's lakes, rivers and streams, as well as our State hatchery system. The program operates under the guiding principle that prevention is better than control and focuses a great deal of effort on protecting Montana's fish from the introduction of a variety of harmful fish pathogens. Inspections are conducted on many populations of both wild and hatchery populations annually, to ensure that populations are free of harmful pathogens before fish or eggs are moved to new locations.

In addition to activities focused on preventing infections, the fish health lab also provides diagnostic services for both wild and captive fish populations when infections or outbreaks do occur. An ongoing study on the Missouri river below Holter Reservoir was conducted to monitor the long term status of mycobacteria in the whitefish and trout populations. Working to control bacterial coldwater disease in several fish hatcheries in Montana takes a significant amount of time for the fish health staff throughout the year. Time was also spent on the Yellowstone River late in the summer examining the effects of the oil spill on various fish species.

Spring and fall always means spawning fish and the fish health staff worked with both regional and hatchery crews to collect, spawn, and fish health test a variety of fish species that contribute eggs to our State hatchery system. Overall, egg collection efforts were very good and we have a hatchery system full of quality, healthy fish which will be ready for stocking in the spring.



Miles City Fish Hatchery aerial view.

FISH RECORDS

FISH	LENGTH (")	WEIGHT	SITE	ANGLER	DATE
Arctic Grayling	20	3.63 lbs.	Washtub Lake	Glenn Owens	6/28/03
Bigmouth Buffalo	40.7	57.75 lbs.	Nelson Reservoir	Craig D. Grassel	6/4/94
Black Bullhead	14.37	2.60 lbs.	Smiley Slough	Birrell White	6/20/09
Black Crappie	16.7	3.13 lbs.	Tongue River Reservoir	Al Elser	1973
Bluegill	11	2.64 lbs.	Peterson's Stock Dam	Brent Fladmo	6/3/83
Blue Sucker	29.75	11.46 lbs.	Yellowstone River - Miles City	Doug Askin	10/7/89
Brook Trout		9.06 lbs.	Lower Two Medicine Lake	John R. Cook	1940
Brown Trout		29 lbs.	Wade Lake	E.H. "Peck" Bacon	1966
Bull Trout (Dolly Varden)	37	25.63 lbs.		James Hyer	1916
Burbot	39	17.08 lbs.	Missouri River - Wolf Point	Jeff Eugene Iwen	4/18/89
Channel Catfish	37.6	30.12 lbs	Missouri River - Fred Robinson Brdg.	Jessey Perry	5/08/09
Chinook Salmon	38	31.13 lbs.	Fort Peck Reservoir - Face of Dam	Carl L. Niles	10/2/91
Cisco	17.25	1.75 lbs.	Below Ft Peck Powerhouse	Curt Zimmerman	5/19/01
Coho Salmon	25.5	4.88 lbs.	Fort Peck Reservoir - Face of Dam	Irven F. Stohl	5/29/73
Common Carp	38	40.2 lbs.	Nelson Reservoir	Jared S. Albus	5/24/98
Cutthroat Trout		16 lbs.	Red Eagle Lake	Wm. D. Sands	1955
Emerald Shiner	3.43	0.01 lbs	Park Grove Bridge	Ike Braaten	6/9/06
Flathead Chub	11.2	0.59 lbs.	Thornton Pond	Douglas Jordan	4/29/01
Freshwater Drum	29.5	21.59 lbs	Fort Peck - Ghost Coulee	Matt Washut	5/3/03
Golden Trout	23.5	5.43 lbs.	Cave Lake	Mike Malixi	7/16/00
Goldeye		3.18 lbs.	Nelson Reservoir	Don Nevrvy	7/4/00
Green Sunfish	9.0	0.84 lbs.	Hickson's Pond	Bette Schmieding	5/25/09
Kokanee Salmon	26.8	7.85 lbs	Hauser Lake	John Bomar	9/23/03
Lake Chub	3.9	.02 lbs.	Teton River	Joe Hagengruber	8/22/10
Lake Trout	42.5	42.69 lbs.	Flathead Lake	Ruth Barber	6/23/04
Lake Whitefish	27	10.46 lbs.	Flathead Lake	Swan McDonald V	8/26/06
Largemouth Bass	22.5	8.80 lbs.	Noxon Rapids Reservoir	Darin Williams	5/2/09
Largescale Sucker	23.1	6.16 lbs.	Woodland Pond	Kevin Fraley	6/27/08
Longnose Sucker		3.27 lbs.	Marias River - Loma	Ray Quigley	5/8/88
Mottled Sculpin		0.05 lbs.	Belt Creek (North of Neihart MT)	Brad Sullivan	7/30/01
Mountain Sucker	6.2	1.60 oz.	Beaver Creek Reservoir	Robert Garwood	4/23/01
Mountain Whitefish	23	5.11 lbs.	Hauser Reservoir	Walt Goodman	10/10/07
Northern Pikeminnow	27.125	7.88 lbs.	Noxon Rapids Reservoir	Darrel Torgrimson	5/28/91
Paddlefish	77	142.5 lbs.	Missouri River - Near Kipp Park	Larry Branstetter	5/20/73
Northern Pike		37.5 lbs.	Tongue River Reservoir	Lance Moyer	1972
Pallid Sturgeon		60 lbs.	Yellowstone River - Near Sidney	Gene Sattler	5/13/79
Peamouth	16.125	1.52 lbs	Clark Fork River	Mike Jensen	7/29/07
Pygmy Whitefish	9.84	0.36 lbs.	Little Bitterroot Lake	Richard Geldrich	2/13/10
Pumpkinseed	9.5	0.96 lbs.	Upper Thompson Lake	Nathan Bache	7/30/06
Rainbow Trout	38.62	33.1 lbs.	Kootenai River - David Thompson Brdg	Jack G. Housel, Jr.	8/11/97
Rainbow-Cutthroat Hybrid Trout	35.75	30.25 lbs.	Ashely Lake	Pat Kelley	5/16/82
Redside Shiner	6.5	0.10 lbs.	Lost Lake	Josh Ahles	8/21/01
River Carpsucker	24	6.95 lbs.	Fort Peck Reservoir	Brady Miller	8/15/08
Rock Bass	9.88	0.82 lbs.	Lower Crazy Head Springs Reservoir	Lance Dennis	5/14/10
Sauger	28.2	8.805 lbs.	Fort Peck Reservoir	Gene Moore	12/12/94
Saugeye		15.66 lbs.	Fort Peck Reservoir - Squaw Creek	Myron Kibler	1/11/95
Shortnose Gar	34	7.02 lbs.	Fort Peck Dredge Cuts	Ron Gulbertson	12/22/03
Shorthead Redhorse	20.25	4.68 lbs.	Marias River - Near Loma	Ray Quigley	4/14/85
Shovelnose Sturgeon	39.75	14.125 lbs.	Missouri River	Chad Buck	5/21/10
Smallmouth Bass	21	6.66 lbs.	Fort Peck Reservoir	Mike Otten	7/30/02
Smallmouth Buffalo	38	38 lbs	Nelson Reservoir	Brady Miller	4/28/07
Spottail Shiner	3.0	.02 lbs	Tiber Reservoir	Joe Hagengruber	8/14/10
Stonecat	10	0.54 lbs.	Milk River	Dale Bjerga	6/16/96
Tiger Muskellunge	49	31.3	Deadman's Basin Reservoir	Dan Weil	7/6/11
Tiger Trout	20.6	4.04 lbs.	Bear Lake	Joe Sobczak	2/9/97
Utah Chub		1.81 lbs.	Canyon Ferry Reservoir	Eugene Bastian	2/5/92
Walleye	35	17.75 lbs.	Tiber Reservoir	Robert Hart	11/18/07
White Bass	17	2.80 lbs.	Missouri River - South of Bainville	Vernon Pacovsky	10/13/07
White Crappie	18.5	3.68 lbs.	Tongue River	Gene Bassett	5/10/96
White Sturgeon	75	96 lbs.	Kootenai River	Herb Stout	1968
White Sucker	21.625	5.33 lbs.	Nelson Reservoir	Fred Perry	2/10/83
Yellow Perch	14.375	2.39 lbs.	Lower Stillwater Lake	Josh Emmert	2/19/06
Yellow Bullhead	12.2	1.01 lbs.	Ninepipe Reservoir	Max Bernt	7/19/11

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